

People"

## **CITY OF RIVERSIDE**

February 19, 2002

U.S. EPA Region 9 ATTN: WTR-7, Biosolids Coordinator 75 Hawthorne Street San Francisco, CA 94105-3901

**SUBJECT:** Annual Report for 2001, Biosolids Disposal

Dear Ms. Fondahl:

In compliance with 40 CFR Part 503, we are submitting the 2001 Annual Report of Biosolids Disposal for the City of Riverside Water Quality Control Plant.

Settable and floatable solids removed from the primary and secondary activated sludge processes are pumped to anaerobic digesters for further volatile solids reduction and vector attraction reduction. The digested sludge is dewatered on belt-filter presses and trucked to on-site sludge drying beds for further drying. The dried sludge is removed by two contractors: Synagro West, Inc., which land-applied the biosolids in Riverside County (for specific information, refer to Synagro's annual report) and One Stop Landscape Supply, which co-composts the biosolids.

If you have any questions or comments, please contact me at (909) 351-6187.

Sincerely,

John A. Claus

Acting Wastewater Systems Manager

**Enclosures** 

cc: Gary Stewart, Regional Water Quality Control Board Admin. File

\\PW-WQCP\VOL1\ADMIN\REGBD\SLUDGE\2001\503 Report Letter.doc

#### PUBLIC WORKS DEPARTMENT

# BACKGROUND INFORMATION

		· · · · · · · · · · · · · · · · · · ·
1. NAME AND ADDRESS OF FACILITY	2. NAME AND ADDRESS OF FACI	LITY OWNER
Facility Name Riverside Regional Water Quality Control Plant	Facility Owner's NameCit	v of Riverside
Address 5050 Acorn Street	Address 390	O Main Street
Clly Riverside State CA 7to 92504		erside Slale CA Zlp 92522
City Riverside State CA Zip 92504 Facility Contact John A Claus Phone (909) 351-6187	R1V	erside Slale CA Zip 92522
Signalory		
3. REPORTING PERIOD		
FROM YEAR MO DAY YEAR MO DAY	CA0105350	
2001 01 01 TO 2001 12 31 4.	NPDES PERMIT NUMBER	5. SLUDGE PERMIT NUMBER
6. FACILITY STATUS 7. TOTAL ANNUAL VOI	UME OF SEWAGE SLUDGE	R FINAL LICE AND DISDOCAL METHOD
til trebater of sewage sludge	oma or ordinar ordinar	8. FINAL USE AND DISPOSAL METHODS  AND Land application
☐ Land applier ☐ Owner/operator of surface disposal site	<u> </u>	☐ Surface disposal
Owner/operator of Incinerator     Units: Di (metric tons; de		☐ Unlined or ☐ Lined ☐ Incineration
Other		Di Other, explainComposting
O Manya and address of horse and souls the first the fir		
9. Hame and address of persons performing final use or disposal (altach additio	nal sheets if necessary)	
(1) Same as preparer		
Facility Name Synagro West, Inc. Address P.O. Box 7027	Facility Name One Stop La Address 13024 San T	ndscape Supply
-		
Clly Corona State CA Zlp 92878-7027 Facility Contact Mark Grey	City Red lands	State CA Zlp 92373
Facility Contact Mark Grey Volume of studge received from preparer 4,453.37 lons (Wet)	Volume of sludge received from p	repaior 2.063.58 Metric Tons (W Logo Composting
Final use/disposal method for sludge Land Application	Final use/disposal method for sluc	Ige Composting
Facility Name	Facility Name	State Zlp
	Vociess	
City State Zip Facility Contact	City	State Zlp
Volume of sludge received from preparer	Volume of sludge received from p	ranarar
Final use/disposal method for sludge	Final use/disposal method for sluc	lge
10. CERTIFICATION		
I certify under penalty of law that this document and all attachments were prepar	ed under my direction or supervision	in accordance with a system designed to
assure that qualified personnel properly gather and evaluate the information sub- gathering the information submitted, it is to the best of my knowledge and belief,	milled, Based on my inquiry of the pe - true, accurate, and complete. I am av	rson or persons directly responsible for vare that there are algulicant negation for
submitting false information.		rate that there are alguments periation to
Name and Ollicial Title (type or print)		Area Code and Phone
John A. Claus, Acting Wastewater Systems Manager Signature		909 ) 351-6187 Date Signed
St. Claur		2/19/02
7		<u> </u> L/ 1 J / U L

## VECTOR ATTRACTION REDUCTION AND PATHOGEN REDUCTION

	2. Facility Owner's Name City of
Quality Control Plant	
	Address 3900 Main Street
City Riverside	
State <u>CA</u> Zip <u>92504</u>	State <u>CA</u> Zip <u>92522</u>
<ol> <li>Monitoring Period:         <ul> <li>From 01/01/01 To 02/28/01</li> </ul> </li> <li>NPDES Permit No: CA 0105350</li> </ol>	Reporting Period:           From _01/01/01 To _02/28/01           Sludge Permit No: N/A
5. Facility Latitude: 33° 57' 55" N	Facility Longitude:117° 27' 28" W
Site Map Attached Yes	No
units or activities and describes operating programmeters such as treatment capacity, slud percent solids. Also include a description operating parameters.	luction procedures that identifies specific treatment rocedures. Include target values for all operating ge detention time, operating temperature, pH, and of standard procedures for regular evaluation of the
VECTOR ATTRACTION REDUCTION	N - OPTION 1 [40 CFR 503,33 (B)(1)]
reduced by at least 38%) to demonstrate con a. Alternative 1 - Time and Temperature	(Mass of volatile solids in the sewage sludge been impliance with the regulations.  ewage sludge been reduced by at least 38%?
	yes no
	763
	✓
Frequency volatile solids reduction is v	verified 32 per period.
PATHOGENS REDUCTION CLASS	B - ALTERNATIVE 2 [40 CFR 503.32 (B) (3)]
8. Anaerobic Digestion	2 121211 1111 2 2 [10 0211 000102 (2) (0)]
	sludge between 15 days at 35°C to 55°C and 60
	ves no
	yes no
	✓
b. Provide the frequency of temperature me 1/shift, 3 sh	easurements (i.e. continuous, 1 per hour, etc.)
c. Provide the average detention time and concerned 15.9 days at 37.2 °C.	ligester operating temperature for the reporting

#### MONITORING PERIOD

#### January 1, 2001 through February 28, 2001

Parameter	Table 3 Pollutant Concentrations	Maximum Pollutant Concentration MG/KG	Frequency of Analysis	Sample Type, Grab or Composite	Analytical Method
Arsenic	41	6.82	2	Composite	6010B ICP
Cadmium	39	1.0	2	Composite	6010B ICP
Chromium	1200	40.0	2	Composite	6010B ICP
Copper	1500	714	2	Composite	6010B ICP
Lead	300	48.9	2	Composite	6010B ICP
Mercury	17	1.78	2	Composite	245.5 & 245.2
Molybdenum		14.7	2	Composite	6010B ICP
Nickel	420	19.9	2	Composite	6010B ICP
Selenium	36	7.56	2	Composite	6010B ICP
Zinc	2800	769	2	Composite	6010B ICP

#### Certification

I certify under penalty of law that this document and all attachments were prepared under my supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information submitted, it is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information.

John A. Claus, Operations Manager

Name and Title (Type or print)

Area Code and Phone

Signature

Date Signed

Table & concentration limits are referenced to demonstrate that the sludge is of exceptional quality in regards to metals.

Order #: 239303 Matrix: SOLID Client: City of Riverside (WW)
Client Sample ID: Dry Sludge 01/09

Date Sampled: 01/09/2001

Time Sampled: Sampled By:

Analyte	Result	DF	DLR	Units	Date/A	nalyst
50.1 pH						
рН	7.16	1		NA	01/22/01	LN
45.5 Mercury in Solids by Manual Cold Vapor						
Mercury	1.42	1	0.12	mg/Kg	01/18/01	MJ
00.0 Nitrate as NO3 by Ion Chromatography						
Nitrate (as NO3)	ND	1	5.0	mg/Kg	02/03/01	CM
50.2 Ammonia by Distillation						
Ammonia-N	8610	1	5.0	mg/Kg	02/03/01	BS
51.3 Total Kjeldahl Nitrogen (TKN)						
Total Kjeldahl Nitrogen (TKN)	49,000	1	5.0	mg/Kg	02/03/01	BS
010B ICP Metals - Solid/Liquid		····		·		
Arsenic	6.82	1	0.25	mg/Kg	01/23/01	NK
Cadmium	1.0	1	0.30	mg/Kg	01/23/01	KN
Chromium	40.0	1	0.50	mg/Kg	01/23/01	KN
Copper	714	1	0.50	mg/Kg	01/23/01	KN
Lead	48.9	1	0.25	mg/Kg	01/23/01	NK
Molybdenum	14.7	1	0.65	mg/Kg	01/23/01	KN
Nickel	19.9	1	0.60	mg/Kg	01/23/01	KN
Phosphorus	33,600	20	200.0	mg/Kg	01/23/01	KN
Potassium	1680	1	50.0	mg/Kg	01/23/01	KN
Selenium	7.3	1	0.20	mg/Kg	01/23/01	NK
Zinc	769	1	0.30	mg/Kg	01/23/01	KN
loisture, Oven Method					•	
Moisture Moisture	38.24	1		%	01/22/01	LN
						~

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Facto



## ASSOCIATED LABORATORIES Analytical Results Report

**Order #:** 243527

Matrix: SOLID

Client: City of Riverside (WW)
Client Sample ID: Dry Sludge

**Date Sampled:** 02/06/2001

Zinc

Moisture, Oven Method

Moisture

Time Sampled: Sampled By:

Analyte	Result	DF	DLR	Units	Date/Ar	nal
1				<del></del>		
рН	7.55	.1		NA	02/08/01	L
ercury in Solids by Manual Cold Vapor						
Mercury	1.78	1	0.12	mg/Kg	02/14/01	N
trate as NO3 by Ion Chromatography						
Nitrate (as NO3)	ND	1	5.0	mg/Kg	02/09/01	(
nmonia by Distillation						
nmonia by Distiliation						
Ammonia-N	13,000	1	5.0	mg/Kg	02/22/01	E
Ammonia-N  otal Kjeldahl Nitrogen (TKN)  Organic Nitrogen	13,000	1	5.0		02/22/01	
otal Kjeldahl Nitrogen (TKN)				mg/Kg mg/Kg mg/Kg		E
Otal Kjeldahl Nitrogen (TKN) Organic Nitrogen Total Kjeldahl Nitrogen (TKN)  CP Metals - Solid/Liquid	40,000	1 1	5.0	mg/Kg mg/Kg	02/22/01 02/20/01	E
Otal Kjeldahl Nitrogen (TKN)  Organic Nitrogen  Total Kjeldahl Nitrogen (TKN)	40,000    53,000	1 1	5.0 5.0	mg/Kg mg/Kg mg/Kg	02/22/01 02/20/01 02/13/01	E
Otal Kjeldahl Nitrogen (TKN) Organic Nitrogen Total Kjeldahl Nitrogen (TKN)  CP Metals - Solid/Liquid Arsenic	40,000	1 1	5.0	mg/Kg mg/Kg mg/Kg mg/Kg	02/22/01 02/20/01	E F
Otal Kjeldahl Nitrogen (TKN) Organic Nitrogen Total Kjeldahl Nitrogen (TKN)  CP Metals - Solid/Liquid  Arsenic Cadmium	40,000    53,000    6.09    ND	1 1 1	5.0 5.0 0.25 0.3	mg/Kg mg/Kg mg/Kg	02/22/01 02/20/01 02/13/01 02/16/01	F F
Organic Nitrogen (TKN) Organic Nitrogen Total Kjeldahl Nitrogen (TKN)  CP Metals - Solid/Liquid Arsenic Cadmium Chromium	40,000    53,000    6.09    ND    35.2	1 1 1	5.0 5.0 0.25 0.3 0.5	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	02/22/01 02/20/01 02/13/01 02/16/01 02/16/01	E E N K K K
Organic Nitrogen (TKN)  Organic Nitrogen  Total Kjeldahl Nitrogen (TKN)  CP Metals - Solid/Liquid  Arsenic  Cadmium  Chromium  Copper	40,000    53,000    6.09    ND    35.2    570	1 1 1 1	5.0 5.0 0.25 0.3 0.5 0.5	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	02/22/01 02/20/01 02/13/01 02/16/01 02/16/01	E E K K K K K N
Organic Nitrogen (TKN)  Organic Nitrogen  Total Kjeldahl Nitrogen (TKN)  CP Metals - Solid/Liquid  Arsenic  Cadmium  Chromium  Copper  Lead	40,000    53,000    6.09    ND    35.2    570    45.2	1 1 1 1 1	5.0 5.0 0.25 0.3 0.5 0.5	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	02/22/01 02/20/01 02/13/01 02/16/01 02/16/01 02/13/01	H H H H H
Organic Nitrogen (TKN) Organic Nitrogen Total Kjeldahl Nitrogen (TKN)  CP Metals - Solid/Liquid Arsenic Cadmium Chromium Copper Lead Molybdenum	40,000    53,000    6.09    ND    35.2    570    45.2    10.1	1 1 1 1 1 1	5.0 5.0 5.0 0.25 0.3 0.5 0.5 0.25	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	02/22/01 02/20/01 02/13/01 02/16/01 02/16/01 02/16/01 02/16/01	E
Organic Nitrogen (TKN) Organic Nitrogen Total Kjeldahl Nitrogen (TKN)  CP Metals - Solid/Liquid Arsenic Cadmium Chromium Copper Lead Molybdenum Nickel	40,000    53,000    ND    35.2    570    45.2    10.1    19.6	1 1 1 1 1 1	5.0 5.0 5.0 0.25 0.3 0.5 0.5 0.25 0.65	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	02/22/01 02/20/01 02/13/01 02/16/01 02/16/01 02/16/01 02/16/01 02/16/01	H H K K K

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Facto



KN

LN

mg/Kg

%

02/16/01

02/08/01

0.3

## ASSOCIATED LABORATORIES Analytical Results Report

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Water Reclamation Division Public Works Department City of Riverside, CA

Monthly Sludge Disposal Report

<u>January</u> 2001 Month Year

During this month, 557.39 tons of Biosolids were removed by our subcontractor, Synagro West, Inc., located at P.O. Box 7027, Corona, CA, 92878-7027. They are currently performing land application of the biosolids. During this month, 0 tons of Biosolids were removed by our subcontractor, One Stop Landscape Supply, located at 13024 San Timoteo Canyon Road, Redlands, CA 92373. They are currently performing composting with the biosolids.

Laboratory analysis data is attached certifying the Biosolids generated at this plant to be a clean Class B sludge.

Digester data is attached certifying the Biosolids have met the time and temperature requirements for Class B Pathogen Reduction through Anaerobic Digestion as well as the Vector Attraction requirement of more than 38% volatile solids reduction.

"I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)1 have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

Signature

Date

02/22/01

#### Water Reclamation Division Public Works Department City of Riverside, CA

#### Monthly Sludge Disposal Report

February	2001
Month	Year

During this month, \_\_\_\_\_0 \_\_\_ tons of Biosolids were removed by our subcontractor, Synagro West, Inc., located at P.O. Box 7027, Corona, CA, 92878-7027. They are currently performing land application of the biosolids. During this month, \_\_\_\_0 \_\_\_ tons of Biosolids were removed by our subcontractor, One Stop Landscape Supply, located at 13024 San Timoteo Canyon Road, Redlands, CA 92373. They are currently performing composting with the biosolids.

Laboratory analysis data is attached certifying the Biosolids generated at this plant to be a clean Class B sludge.

Digester data is attached certifying the Biosolids have met the time and temperature requirements for Class B Pathogen Reduction through Anaerobic Digestion as well as the Vector Attraction requirement of more than 38% volatile solids reduction.

"I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)1 have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

Signature

Date

03/23/01

### **Biosolids Processing Data January - February 2001**

	Digester Influent	Digester Effluent	AverageVolatile	Belt Press Discharge	Digester #1	Digester #2	Digesto	
	Volatile Suspended Solids	Volatile Suspended Solids	Suspended Solids Reduction		Temperature	Temperature	Detention Tin	
DATE	%	%	%	Dry Tons	°C	°C	Measured	Required
1/1/01				20.25	36.83	37	15.3	9.3
1/2/01	80	66	50.2	10.73	37	37	17.2	9.0
1/3/01	80	65	54.7	34.73	37	37	15.6	9.0
1/4/01	80	65	53.5	18.97	37	37	13.7	9.0
1/5/01	81	66	54.3	14.79	37	37	15.7	9.0
1/6/01				0.00	38	38	16.0	6.0
1/7/01				19.92	37.5	37.5	16.0	7.5
1/8/01	80	66	50.7	23.91	37	37	13.7	9.0
1/9/01	80	64	55.8	25.06	36.3	35.3	13.7	12.6
1/10/01	81	65	57.1	36.46	35	36.3	14.6	13.1
1/11/01	82			10.04	34	35	17.9	16.5
1/12/01	79	63	55.2	24.07	34	35	15.1	16.5
1/13/01				0.00	35	35	16.4	15.0
1/14/01				22.67	35.3	35.3	17.1	14.1
1/15/01	80	66	51.4	20.55	36.3	36.2	17.3	11.3
1/16/01	80	65	54.3	25.09	37	36	17.3	10.5
1/17/01	80	67	50.6	39.45	37	36.6	16.8	9.6
1/18/01	80			11.29	36.9	35	16.5	12.2
1/19/01	81	66	53.7	13.24	36.3	35.3	16.3	12.6
1/20/01				0.00	37	36	17.2	10.5
1/21/01				0.00	37	37	17.2	9.0
1/22/01	78	65	48.8	25.91	37.5	37	17.4	8.3
1/23/01		65		21.71	37.5	37	17.7	8.3
1/24/01		64		21.86	37.2	37	17.1	8.7
1/25/01	82	66	57.7	23.92	37.5	37.5	18.4	7.5
1/26/01	80	65	54.3	22.84	38	37.5	17.5	6.8
1/27/01				0.00	38	37	18.3	7.5
1/28/01				0.00	38	38	18.7	6.0
1/29/01	81	65	57.7	22.53	38	37.5	21.3	6.8
1/30/01	80	63	57.4	21.56	38	38	19.3	6.0
1/31/01	81	66	53.8	21.80	37	37	17.9	9.0
2/1/01	81	64	57.0	16.16	37.5	38	16.6	6.8
2/2/01				6.75	38	38	17.8	6.0
2/3/01				0.00	38	38	15.7	6.0
2/4/01				0.00	37.83	38	14.9	6.3
2/5/01	80	65	54.4	25.19	37.5	37.5	14.3	7.5
2/6/01	80	67	49.4	23.87	38	38	14.4	6.0
2/7/01	82			23.59	38	38	14.5	6.0
2/8/01	82	66	56.1	22.98	37.5	37.5	14.3	7.5
2/9/01	81	65	56.9	18.80	38	38	13.6	6.0

## **Biosolids Processing Data January - February 2001**

	Digester Influent	Digester Effluent	AverageVolatile	Belt Press Discharge	Digester #1	Digester #2	Digest	
	Volatile Suspended Solids	Volatile Suspended Solids	Suspended Solids Reduction		Temperature	Temperature	Detention Tir	
DATE	%	%	%	Dry Tons	°C	°C	Measured	Required
2/10/01				0.00	38	38	13.9	6.0
2/11/01				21.36	37.83	37.83	13.7	6.5
2/12/01	81	66	55.2	21.93	37.3	37	12.9	8.6
2/13/01	80	67	47.7	26.01	37.5	37	13.8	8.3
2/14/01	81	68	49.6	38.35	37.6	37.1	13.4	7.9
2/15/01	79	66	49.7	25.58	38	37	14.4	7.5
2/16/01	81	65	56.7	25.30	38	37	14.5	7.5
2/17/01				0.00	37.5	37.5	14.4	7.5
2/18/01				0.00	37.5	37.3	14.8	7.8
2/19/01	80	66	52.4	21.41	37.5	37.5	16.1	7.5
2/20/01	81			14.02	37.8	37.8	16.4	6.6
2/21/01	81	65	56.4	32.95	37.7	37.7	14.9	6.9
2/22/01	81	67	51.4	14.34	37.5	37.6	15.8	7.4
2/23/01	81	67	53.1	22.31	37.5	37.5	15.2	7.5
2/24/01				0.00	37.5	37.5	15.4	7.5
2/25/01				21.99	37.3	37.3	16.8	8.1
2/26/01		68		23.46	37.5	37.6	15.0	7.4
2/27/01		67		23.04	37.5	37.5	16.1	7.5
2/28/01		66		25.29	37.6	37.6	13.8	7.2
Minimum	78.4	63.0	47.7	0	34	35	12.9	6.0
Maximum	82.1	68.0	57.7	39.45	38	38	21.3	16.5
Average	80.5	65.6	53.7	17.76	37.2	37.1	15.9	8.6
Total				1048.04				

VECTOR ATTRACTION REDUCT	FION AND PATHOGEN REDUCTION
Quality Control Plant Address5950 Acorn St.	City Riverside
<ul> <li>Monitoring Period:         <ul> <li>From 03/01/01 To 04/30/01</li> </ul> </li> <li>NPDES Permit No: <u>CA 0105350</u></li> </ul>	Reporting Period:  From 03/01/01 To 04/30/01 Sludge Permit No: N/A
5. Facility Latitude:33° 57' 55" N	Facility Longitude:117° 27' 28" W
Site Map Attached Yes	No
units or activities and describes operating p parameters such as treatment capacity, slud percent solids. Also include a description of operating parameters.	uction procedures that identifies specific treatment rocedures. Include target values for all operating ge detention time, operating temperature, pH, and of standard procedures for regular evaluation of the  Schematic diagram or drawing attached.
VECTOR ATTRACTION REDUCTION	- OPTION 1 [40 CFR 503.33 (B)(1)]
7. The City of Riverside utilizes Alternative 1 reduced by at least 38%) to demonstrate con	(Mass of volatile solids in the sewage sludge been mpliance with the regulations.
a. Alternative 1 - Time and Temperature Has the mass of volatile solids in the se	ewage sludge been reduced by at least 38%?  yes no
Frequency volatile solids reduction is v	verified 30 per period .
DATE OF THE PROPERTY OF A CO.	D AT TERMINATIVE 2 (40 CED 202 22 (D) (2))

## PATHOGENS REDUCTION CLASS B - ALTERNATIVE 2 [40 CFR 503.32 (B) (3)]

- 8. Anaerobic Digestion
  - a. Was the residence time for the sewage sludge between 15 days at 35°C to 55°C and 60 days at 20°C?

yes	no
1	

- b. Provide the frequency of temperature measurements (i.e. continuous, 1 per hour, etc.)

  1/shift, 3 shifts/day
- c. Provide the average detention time and digester operating temperature for the reporting period <u>14.8</u> days at 37.5 °C.

#### MONITORING PERIOD

#### March 1, 2001 through April 30, 2001

Parameter	Table 3 Pollutant Concentrations	Maximum Pollutant Concentration MG/KG	Frequency of Analysis	Sample Type, Grab or Composite	Analytical Method
Arsenic	41	6.37	2	Composite	6010B ICP
Cadmium	39	1.94	2	Composite	6010B ICP
Chromium	1200	34.5	2	Composite	6010B ICP
Copper	1500	701	2	Composite	6010B ICP
Lead	300	49.1	2	Composite	6010B ICP
Mercury	17	1.13	2	Composite	245.5
Molybdenum		11.07	2	Composite	6010B ICP
Nickel	420	23.8	2	Composite	6010B ICP
Selenium	36	6.41	2	Composite	6010B ICP
Zinc	2800	846	2	Composite	6010B ICP

#### Certification

I certify under penalty of law that this document and all attachments were prepared under my supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information submitted, it is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information.

John A. Claus, Operations Manager	(909) 351-6187
Name and Title (Type or print)	Area Code and Phone
A Cla	5/24/01
Signature	Date Signed

Table 3 concentration limits are referenced to demonstrate that the sludge is of exceptional quality in regards to metals.



## ASSOCIATED LABORATORIES

806 North Batavia • Orange, California 92868 • 714/771-6900

FAX 714/538-1209

**CLIENT** 

City of Riverside Diana Whitney 5950 Acorn St.

Riverside, Ca. 92504

LAB NO.

LR68809

**REPORTED** 

04/02/01

**SAMPLE** 

Sludge

**RECEIVED** 

03/07/01

**IDENTIFICATION** 

Date Collected 03/06/01

**BASED ON SAMPLE** 

As Submitted

	Date/	RPA	Method Detection	1	
<u>Constituent</u>	Analyst	Method	Limit	Result	S
Antimony	03/12 KN	6010B	1.50	6.57	mg/kg
Arsenic	03/12 KN	6010B	0.25	6.37	mg/kg
Beryllium	03/12 KN	6010B	0.10	0.71	mg/kg
Cadmium	03/12 KN	6010B	0.30	1.94	mg/kg
Chromium, III	04/12 BS	Cal.	0.37	6.78	mg/kg
Chromium, VI	04/12 DK	3500-Cr	0.02	ND	mg/kg
Copper	03/12 KN	6010B	0.50	701	mg/kg
Lead	03/12 KN	6010B	0.25	49.1	mg/kg
Mercury	03/09 MJ	245.5	0.12	1.13	mg/kg
Molybdenum	03/12 KN	6010B	0.65	11.07	mg/kg
Nickel	03/12 KN	6010B	0.60	23.8	mg/kg
Potassium	03/12 KN	6010B	50.0	1,420	mg/kg
Selenium	03/12 KN	6010B	0.20	6.41	mg/kg
Silver	03/12 KN	6010B	0.50	31.4	mg/kg
Thallium	03/12 KN	6010B	0.40	ND	mg/kg
Zinc	03/12 KN	6010B	0.30	846	mg/kg
Cyanide	03/12 JA	335.2	0.5	1.52	mg/kg
Nitrate	03/08 CM	300.0	1.0	ND	mg/kg
Ammonia	03/09 BS	350.2	5.0	3,530	mg/kg
Total Kjeldhal Nitrogen	03/13 BS	351.3	5.0	32,300	mg/kg
Phosphorus	03/12 KN	6010B	10.0	24,291	mg/kg
Moisture	03/07 <b>NJ</b>		1.0	56.64	mg/kg
рН	03/17 LN	150.1	N/A	6.75	mg/kg
2,3,7,8-TCDD	03/14 DP	8270	333	ND	μg/kg
Acrolein	03/09 DP	8260	200	ND	μg/kg
Acrylonitrile	03/09 DP	8260	5	ND	μg/kg
Benzene	03/09 DP	8260	5	ND	μg/kg
Bromoform	03/09 DP	8260	5	ND	μg/kg

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TESTING & CONSULTING

- Chemical •
- Microbiological •
- Environmental •

Client: City of Riverside Lab No: LR68809

No: LR68809				Wathad		
				Method		
	Date/		BPA	Detection	Result	. 6
Constituent	Analys		Method	<u>Limit</u>		
Carbon Tetrachloride	03/09		8260	5	ND	μg/kg α/kg
Chlorobenzene	03/09		8260	5	ND	μg/kg
Chlorodibromomethane	03/09		8260	5	ND	μg/kg
Chloroethane	03/09		8260	5	ND	μg/kg
2-Chloroethylvinylether	03/09		8260	5	ND	μg/kg
Chloroform	03/09		8260	5	ND	μg/kg
Dichlorobromomethane	03/09		8260	5	ND	μg/kg
1,1-Dichloroethane	03/09		8260	5	ND	μg/kg
1,2-Dichloroethane	03/09		8260	5	ND	μg/kg
1,1-Dichloroethylene	03/09		8260	5	ND	μg/kg
1,2-Dichloropropane	03/09		8260	5	ND	μg/kg
1,3-Dichloropropylene	03/09		8260	5	ND	μg/kg
Ethylbenzene	03/09	DP	8260	5	ND	μg/kg
Methyl bromide	03/09		8260	5	ND	μg/kg
Methyl chloride	03/09	$\mathbf{DP}$	8260	5	ND	μg/kg
Methylene chloride	03/09	DP	8260	5	ND	μg/kg
1,1,2,2-Tetrachloroethane	03/09	DP	8260	5	ND	μg/kg
Tetrachloroethylene	03/09	$\mathbf{DP}$	8260	5	ND	μg/kg
Toluene	03/09	$\mathbf{DP}$	8260	5	ND	μg/kg
1,2-Trans-Dichloroethylene	03/09	DP	8260	5	ND	μg/kg
1,1,1-Trichloroethane	03/09	$\mathbf{DP}$	8260	5	ND	μg/kg
1,1,2-Trichloroethane	03/09	DP	8260	5	ND	μg/kg
Trichloroethylene	03/09	DP	8260	5	ND	μg/kg
Vinyl chloride	03/09	DP	8260	5	ND	μg/kg
2-Chlorophenol	03/14	$\mathbf{DP}$	8270	333	ND	μg/kg
2,4-Dichlorophenol	03/14	DP	8270	333	ND	μg/kg
2,4-Dimethylphenol	03/14		8270	333	ND	μg/kg
2-Methyl-4,6-Dinitrophenol	03/14	$\mathbf{DP}$	8270	333	ND	μg/kg
2,4-Dinitrophenol	03/14	DP	8270	333	ND	μg/kg
2-Nitrophenol	03/14	$\mathbf{DP}$	8270	333	ND	μg/kg
4-Nitrophenol	03/14	DP	8270	333	ND	μg/kg
3-Methyl-4-chlorophenol	03/14		8270	333	ND	μg/kg
Pentachlorophenol	03/14	$\mathbf{DP}$	8270	333	ND	μg/kg
Phenol	03/14	DP	8270	333	ND	μg/kg
2,4,6-Trichlorophenol	03/14	DP	8270	333	ND	μg/kg
Acenapthene	03/14	$\mathbf{DP}$	8270	333	ND	μg/kg
Acenapthylene	03/14	DP	8270	333	ND	μg/kg
Anthracene	03/14	DP	8270	333	ND	μg/kg
Benzidine	03/14	DP	8270	333	ND	μg/kg
Benzo (a) anthracene	03/14	DP	8270	333	ND	μg/kg
Benzo (a) pyrene	03/14	DP	8270	333	ND	μg/kg
Benzo (b) fluoranthene	03/14	$\mathbf{DP}$	8270	333	ND	μg/kg
Benzo(g,h,i)perylene	03/14		8270	333	ND	μg/kg
Benzo (k) fluoranthene	03/14		8270	333	ND	μg/kg
Bis (2-Chloroethoxy) methane			8270	333	ND	μg/kg
Bis (2-Chloroethyl) ether	03/14	DP	8270	333	ND	μg/kg
Bis (2-Chloroisopropyl) ethe			8270	333	ND	μg/kg
Bis (2-Ethylhexyl) phthalate	03/14	DP	8270	333	12,200	μg/kg

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Client: City of Riverside Lab No: LR68809

			Method		
	Date/	BPA	Detection		
Constituent	Analyst	Method	<u>Limit</u>	<u>Results</u>	
4-Bromophenyl Phenyl Ether		8270	333		μg/kg
Butylbenzyl Phthalate	03/14 DP	8270	333		μg/kg
2-Chloronaphthalene	03/14 DP	8270	333		μg/kg
4-Chlorophenylphenylether	03/14 DP	8270	333		μg/kg
	03/14 DP	8270	333		μg/kg
Chrysene Dibenzo(a,h)anthracene	03/14 DP	8270	333	ND	μg/kg
1,2-Dichlorobenzene	03/14 DP	8270	333	ND	μg/kg
1,3-Dichlorobenzene	03/14 DP	8270	333	ND	μg/kg
1,4-Dichlorobenzene	03/14 DP	8270	333	ND	μg/kg
3,3-Dichlorobenzidine	03/14 DP	8270	333	ND	μg/kg
Diethyphthalate	03/14 DP	8270	333	ND	μg/kg
Dimethylphthalate	03/14 DP	8270	333	ND	μg/kg
Di-n-butylphthalate	03/14 DP	8270	333	ND	μg/kg
2,4-Dinitrotoluene	03/14 DP	8270	333	ND	μg/kg
2,6-Dinitrotoluene	03/14 DP	8270	333	ND	μg/kg
1,2-Diphenylhydrazine	03/14 DP	8270	333	ND	μg/kg
Fluoranthene	03/14 DP	8270	333	ND	μg/kg
Fluorene	03/14 DP	8270	333	ND	μg/kg
Hexachlorobenzene	03/14 DP	8270	333	ND	μg/kg
Hexachlorobutadiene	03/14 DP	8270	333	ND	μg/kg
Hexachlorocyclopentadiene	03/14 DP	8270	333	ND	μg/kg
Hexachloroethane	03/14 DP	8270	333	ND	μg/kg
Indeno(1,2,3-cd)pyrene	03/14 DP	8270	333	ND	μg/kg
Isophorone	03/14 DP	8270	333	ND	μg/kg
Naphthalene	03/14 DP	8270	333	ND	μg/kg
Nitrobenzene	03/14 DP	8270	333	ND	μg/kg
N-Nitrosodimethylamine	03/14 DP	8270	333	ND	μg/kg
N-Nitrosodi-N-Proylamine	03/14 DP	8270	333	ND	μg/kg
N-Nitrododiphenylamine	03/14 DP	8270	333	ND	μg/kg
Phenanthrene	03/14 DP	8270	333	ND	μg/kg
Pyrene	03/14 DP	8270	333	ND	μg/kg
1,2,4-Trichlorobenzene	03/14 DP	8270	333	ND	μg/kg
Aldrin	03/04 SD	8081	0.002	ND	mg/kg
Alpha BHC	03/04 SD	8081	0.002	ND	mg/kg
Beta BHC	03/04 SD	8081	0.003	ND	mg/kg
Delta BHC	03/04 SD	8081	0.005	ND	mg/kg
Gamma BHC	03/04 SD	8081	0.003	ND	mg/kg
Chlordane	03/04 SD	8081	0.008		mg/kg
4,4'-DDT	03/04 SD	8081	0.003		mg/kg
4,4'-DDE	03/04 SD	8081	0.003		mg/kg
4,4'-DDD	03/04 SD	8081	0.008	0.018	mg/kg
Dieldrin	03/04 SD	8081	0.003	ND	mg/kg
Alpha Endosulfan	03/04 SD	8081	0.004	ND	mg/kg
Beta Endosulfan	03/04 SD	8081	0.004	ND	mg/kg
Enosulfan Sulfate	03/04 SD	8081	0.003	ND	mg/kg
Endrin	03/04 SD	8081	0.004	ND	mg/kg
Endrin Aldehyde	03/04 SD	8081	0.004	ND	mg/kg
Heptachlor	03/04 SD	8081	0.002	ND	mg/kg
Heptachlor Epoxide	03/04 SD	8081	0.003	ND	mg/kg
<b>-</b>					

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lient: City of Riverside lab No: LR68809

Constituent PCB 1016 PCB 1221 PCB 1232 PCB 1242 PCB 1248 PCB 1254 PCB 1260	Date/ Analyst 03/04 SD	BPA Method 8082 8082 8082 8082 8082 8082 8082 808	Method Detection Limit 0.033 0.06 0.04 0.02 0.08 0.01 0.025 0.24	Resul ND ND ND ND ND ND ND ND ND	Its mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg
Toxaphene	03/04 SD	8081	0.24	ND	mg/kg

ASSOCIATED LABORATORIES, by:

Robert A. Webber Vice President

RAW/gk

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported.

**Order #:** 256350

Client: City of Riverside (WW)

Matrix: SOLID

Client Sample ID: Annual Dry Sludge

**Date Sampled:** 04/04/2001

Time Sampled: Sampled By:

Analyte	Result	DF	DLR	Units	Date/An	alyst
0.1						
<u>0.1 pH</u> pH	7.63	1		NA	04/11/01	LN
5.5 Mercury in Solids by Manual Cold Vapor						
Mercury	0.37	1	0.12	mg/Kg	04/11/01	MJ
0.0 Nitrate as NO3 by Ion Chromatography						
Nitrate (as NO3)	6.3	1	5.0	mg/Kg	04/11/01	CM
						-
0.2 Ammonia by Distillation						
Ammonia-N	4140	1	5.0	mg/Kg	04/18/01	NS
***************************************						
1.3 Total Kjeldahl Nitrogen (TKN)						
Organic Nitrogen Organic Nitrogen	33,200	1	5.0	mg/Kg	04/18/01	NS
Total Kjeldahl Nitrogen (TKN)	36,700	$-\frac{1}{1}$	5.0	mg/Kg	04/16/01	NS
10B ICP Metals - Solid/Liquid  Arsenic	5.13	1	0.25	mg/Kg	04/20/01	KN
						KN
		10	3.0	mg/Kg	04/20/01	L I A
Cadmium	ND ND	10	5.0	ma/Va	04/20/01	
Chromium	34.5	10	5.0	mg/Kg	04/20/01	KN
Chromium Copper	34.5 595	10	5.0	mg/Kg	04/20/01	KN KN
Chromium Copper Lead	34.5 595 38.7	10	5.0 0.25	mg/Kg mg/Kg	04/20/01 04/20/01	KN KN KN
Chromium Copper Lead Molybdenum	34.5 595 38.7 6.84	10 1 10	5.0 0.25 6.5	mg/Kg mg/Kg mg/Kg	04/20/01 04/20/01 04/20/01	KN KN KN
Chromium Copper Lead Molybdenum Nickel	34.5 595 38.7 6.84 19.3	10 1 10 10	5.0 0.25 6.5 6.0	mg/Kg mg/Kg mg/Kg mg/Kg	04/20/01 04/20/01 04/20/01 04/20/01	KN KN KN KN
Chromium Copper Lead Molybdenum Nickel Phosphorus	34.5 595 38.7 6.84 19.3 29,300	10 1 10 10 10	5.0 0.25 6.5 6.0 100.0	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	04/20/01 04/20/01 04/20/01 04/20/01 04/20/01	KN KN KN KN KN
Chromium Copper Lead Molybdenum Nickel Phosphorus Potassium	34.5 595 38.7 6.84 19.3 29,300 1700	10 1 10 10 10 10	5.0 0.25 6.5 6.0 100.0 500.0	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/20/01	KN KN KN KN KN KN
Chromium Copper Lead Molybdenum Nickel Phosphorus Potassium Selenium	34.5 595 38.7 6.84 19.3 29,300 1700 5.48	10 1 10 10 10 10	5.0 0.25 6.5 6.0 100.0 500.0	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/20/01	KN KN KN KN KN KN
Chromium Copper Lead Molybdenum Nickel Phosphorus Potassium	34.5 595 38.7 6.84 19.3 29,300 1700	10 1 10 10 10 10	5.0 0.25 6.5 6.0 100.0 500.0	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/20/01	KN KN KN KN KN KN
Chromium Copper Lead Molybdenum Nickel Phosphorus Potassium Selenium Zinc	34.5 595 38.7 6.84 19.3 29,300 1700 5.48	10 1 10 10 10 10	5.0 0.25 6.5 6.0 100.0 500.0	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/20/01	KN KN KN KN KN KN
Chromium Copper Lead Molybdenum Nickel Phosphorus Potassium Selenium Zinc  81A - Organochlorine Pesticides by GC	34.5 595 38.7 6.84 19.3 29,300 1700 5.48 735	10 1 10 10 10 10 10	5.0 0.25 6.5 6.0 100.0 500.0 0.20 3.0	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/20/01	KN KN KN KN KN KN KN
Chromium Copper Lead Molybdenum Nickel Phosphorus Potassium Selenium Zinc  81A - Organochlorine Pesticides by GC Aldrin	34.5   595   38.7   6.84   19.3   29,300   1700   5.48   735	10 10 10 10 10 10 10	5.0 0.25 6.5 6.0 100.0 500.0 0.20 3.0	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/20/01	KN KN KN KN KN KN KN
Chromium Copper Lead Molybdenum Nickel Phosphorus Potassium Selenium Zinc  81A - Organochlorine Pesticides by GC Aldrin Alpha BHC	34.5 595 38.7 6.84 19.3 29,300 1700 5.48 735	10 10 10 10 10 10 11 10	5.0 0.25 6.5 6.0 100.0 500.0 0.20 3.0	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/20/01	KN KN KN KN KN KN KN SD SD
Chromium Copper Lead Molybdenum Nickel Phosphorus Potassium Selenium Zinc  81A - Organochlorine Pesticides by GC Aldrin Alpha BHC Beta BHC	34.5 595 38.7 6.84 19.3 29,300 1700 5.48 735	10 10 10 10 10 10 11 10	5.0 0.25 6.5 6.0 100.0 500.0 0.20 3.0 0.002 0.002 0.003	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/16/01 04/16/01	KN KN KN KN KN KN KN SD SD SD
Chromium Copper Lead Molybdenum Nickel Phosphorus Potassium Selenium Zinc  81A - Organochlorine Pesticides by GC Aldrin Alpha BHC Beta BHC Chlordane	34.5   595   38.7   6.84   19.3   29,300   1700   5.48   735   ND   ND   ND   ND	10 10 10 10 10 10 10 1 10 10	5.0 0.25 6.5 6.0 100.0 500.0 0.20 3.0 0.002 0.002 0.003 0.04	mg/Kg	04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/16/01 04/16/01 04/18/01	KN KN KN KN KN KN KN SD SD SD SD
Chromium Copper Lead Molybdenum Nickel Phosphorus Potassium Selenium Zinc  81A - Organochlorine Pesticides by GC Aldrin Alpha BHC Beta BHC	34.5 595 38.7 6.84 19.3 29,300 1700 5.48 735	10 10 10 10 10 10 11 10	5.0 0.25 6.5 6.0 100.0 500.0 0.20 3.0 0.002 0.002 0.003	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/20/01 04/16/01 04/16/01	KN KN KN KN KN KN KN SD SD SD

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Facto



Client: City of Riverside (WW)
Client Sample ID: Annual Dry Sludge

Date Sampled: 04/04/2001

Time Sampled: Sampled By:

Analyte	Result	DF	DLR	Units	Date/An	alyst
81A - Organochlorine Pesticides by GC	1 0.0071	1	0.003	mg/Kg	04/16/01	SD
DDT		1	0.005	mg/Kg	04/16/01	SD
Delta BHC	ND	1	0.003	mg/Kg	04/16/01	SD
Dieldrin	ND	1	0.003		04/16/01	SD
Endosulfan I	ND	1	0.004	mg/Kg	04/16/01	$\frac{SD}{SD}$
Endosulfan II	ND	1		mg/Kg	04/16/01	SD
Endosulfan sulfate	ND	1	0.003	mg/Kg	04/16/01	SD
Endrin	ND	1	0.004	mg/Kg	04/16/01	SD
Endrin aldehyde	ND	<u> </u>	0.004	mg/Kg	04/16/01	SD
Heptachlor	ND	<u> </u>	0.002	mg/Kg		SD
Heptachlor epoxide	ND ND	1	0.003	mg/Kg	04/16/01	SD
Lindane	ND	1	0.003	mg/Kg	04/16/01	SD
Methoxychlor	ND	1	0.025	mg/Kg	04/16/01	
Toxaphene	ND	1	0.24	mg/Kg	04/16/01	SD
PCB-1016 PCB-1221	NDI NDI	1	0.033	mg/Kg mg/Kg	04/16/01	SD
PCB-1016	ND	1	0.033	mg/Kg	04/16/01	SD
	NDI	1	0.04	mg/Kg	04/16/01	SD
PCB-1232	NDI	1	0.02	mg/Kg	04/16/01	SD
PCB-1242	NDI	1	0.08	mg/Kg	04/16/01	SD
PCB-1248	NDI	1	0.01	mg/Kg	04/16/01	SD
PCB-1254	ND	1	0.025	mg/Kg	04/16/01	SD
PCB-1260				88		
60B Volatile Organic Compounds	i NDI	2	10.0	ug/Kg	04/07/01	DP
1,1,1,2-Tetrachloroethane	NDI	2	10.0	ug/Kg	04/07/01	DP
1,1,1-Trichloroethane	ND	2	10.0	ug/Kg	04/07/01	DP
1,1,2,2-Tetrachloroethane	ND	2	10.0	ug/Kg	04/07/01	DP
1,1,2-Trichloroethane	I ND	$\frac{2}{2}$	10.0	ug/Kg	04/07/01	DP
1,1,2-Trichlorotrifluoroethane	l ND	2	10.0	ug/Kg	04/07/01	DP
1,1-Dichloroethane			10.0	ug/Kg	04/07/01	DP
1,1-Dichloroethene	ND ND	2	10.0	ug/Kg	04/07/01	DP
1,1-Dichloropropene					04/07/01	DP
1,2,3-Trichlorobenzene	ND	2	10.0	ug/Kg	04/07/01	DP
1,2,3-Trichloropropane	ND	2	10.0	ug/Kg		DP
1,2,4-Trichlorobenzene	ND	2	10.0	ug/Kg	04/07/01	
1,2,4-Trimethylbenzene	ND	2	10.0	ug/Kg	04/07/01	DP
1,2-Dibromo-3-chloropropane	ND	2	10.0	ug/Kg	04/07/01	DP

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Facto



Client: City of Riverside (WW)
Client Sample ID: Annual Dry Sludge

Date Sampled: 04/04/2001

Time Sampled: Sampled By:

Sampled By:						
Analyte	Result	DF	DLR	Units	Date/Analy	'st
on con V. I. (II. O Common do						
3260B Volatile Organic Compounds 1,2-Dibromoethane	l ND	2	10.0	ug/Kg	04/07/01 DF	?
1,2-Dichlorobenzene	ND	2	10.0	ug/Kg	04/07/01 DF	>
1,2-Dichloroethane	NDI	2	10.0	ug/Kg	04/07/01 DF	>
1,2-Dichloropropane	ND	2	10.0	ug/Kg	04/07/01 DF	P
1,3,5-Trimethylbenzene	l ND	2	10.0	ug/Kg	04/07/01 DF	P
1,3-Dichlorobenzene	l ND	2	10.0	ug/Kg	04/07/01 DF	P
1,3-Dichloropropane	l NDI	2	10.0	ug/Kg	04/07/01 DF	P
1,4-Dichlorobenzene	NDI	2	10.0	ug/Kg	04/07/01 DF	P
1,4-Dictiorobenzene	l NDI	2	400.0	ug/Kg	04/07/01 DF	P
1-Chlorohexane	l ND	2	10.0	ug/Kg	04/07/01 DF	P
2,2-Dichloropropane	l NDI	2	10.0	ug/Kg	04/07/01 DF	P
2-Butanone (MEK)	NDI	2	200.0	ug/Kg	04/07/01 DI	P
2-Chloroethyl vinyl ether	ND	2	10.0	ug/Kg	04/07/01 DI	P
2-Chlorotoluene	NDI	2	10.0	ug/Kg	04/07/01 DI	P
2-Hexanone	NDI	2	10.0	ug/Kg	04/07/01 DI	P
4-Chlorotoluene	NDI	2	10.0	ug/Kg	04/07/01 DI	P
4-Methyl -2- Pentanone	NDI	2	10.0	ug/Kg	04/07/01 DI	P
Acetone	NDI	2	10.0	ug/Kg	04/07/01 DI	P
Acetonitrile	NDI	2	10.0	ug/Kg	04/07/01 DI	P
Acrolein	l NDI	2	400.0	ug/Kg	04/07/01 DI	Ē-
	NDI	2	10.0	ug/Kg	04/07/01 DI	P
Acrylonitrile  Allyl chloride	NDI	2	10.0	ug/Kg	04/07/01 DI	P
Benzene	NDI	2	10.0	ug/Kg	04/07/01 DI	P
Benzyl chloride	ND	2	10.0	ug/Kg	04/07/01 DI	P
Bromobenzene	NDI	2	10.0	ug/Kg	04/07/01 DI	P
Bromochloromethane	ND	2	10.0	ug/Kg	04/07/01 DI	P
Bromodichloromethane	NDI	2	10.0	ug/Kg	04/07/01 DI	P
Bromoform	NDI	2	10.0	ug/Kg	04/07/01 DI	P
Bromomethane	NDI	2	10.0	ug/Kg	04/07/01 DI	P
Carbon Disulfide	NDI	2	10.0	ug/Kg	04/07/01 DI	P
Carbon tetrachloride	NDI	2	10.0	ug/Kg	04/07/01 DI	<del>P</del>
Chlorobenzene	NDI	2	10.0	ug/Kg	04/07/01 DI	P
Chloroethane	l NDI	2	10.0	ug/Kg	04/07/01 Di	P
Chloroform	l NDI	2	10.0	ug/Kg	04/07/01 DI	P
Chloromethane	NDI NDI		10.0	ug/Kg	04/07/01 D	
Dibromochloromethane	NDI	2	10.0	ug/Kg	04/07/01 D	
	NDI	2	10.0	ug/Kg	04/07/01 Di	
Dibromomethane	I NDI		10.0	να/V α	04/07/01 Di	

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Facto



DP

04/07/01

10.0

ug/Kg

## ASSOCIATED LABORATORIES Analytical Results Report

Dichlorodifluoromethane

ND

Client: City of Riverside (WW)
Client Sample ID: Annual Dry Sludge

**Date Sampled: 04/04/2001** 

Time Sampled: Sampled By:

DF DLR Units Date/Analyst Result Analyte 8260B Volatile Organic Compounds DP 10.0 ug/Kg 04/07/01 ND 2 Ethyl benzene DP 2 10.0 ug/Kg 04/07/01 ND Ethyl methacrylate ND 2 10.0 ug/Kg 04/07/01 DP Hexachlorobutadiene DP 2 10.0 04/07/01 ND ug/Kg Iodomethane 04/07/01 DP 10.0 ug/Kg ND 2 Isopropylbenzene (Cumene) DP 04/07/01 ND 2 10.0 ug/Kg Methacrylonitrile DP 04/07/01 ND 2 10.0 ug/Kg Methyl methacrylate 2 10.0 ug/Kg 04/07/01 DP ND Methyl-tert-butylether (MTBE) DP 10.0 04/07/01 ND 2 ug/Kg Methylene chloride 04/07/01 DP 2 10.0 ug/Kg ND Naphthalene DP 2 10.0 ug/Kg 04/07/01 ND Pentachloroethane 04/07/01 DP 2 10.0 ug/Kg ND Propionitrile 04/07/01 DP 10.0 ug/Kg ND 2 Styrene 04/07/01 DP ND 2 10.0 ug/Kg Tetrachloroethene 04/07/01 DP 2 10.0 ug/Kg ND Toluene 2 10.0 ug/Kg 04/07/01 DP ND Trichloroethene DP 04/07/01 2 10.0 ug/Kg ND Trichlorofluoromethane 04/07/01 DP ND 2 100.0 ug/Kg Vinyl acetate DP 04/07/01 ND 2 10.0 ug/Kg Vinyl chloride 04/07/01 DP ug/Kg ND 2 10.0 Xylenes, total DP 2 10.0 04/07/01 ND ug/Kg cis-1,2-Dichloroethene 04/07/01 DP ND 2 10.0 ug/Kg cis-1,3-Dichloropropene 10.0 04/07/01 DP NDI 2 ug/Kg cis-1,4-Dichloro-2-butene 2 10.0 ug/Kg 04/07/01 DP ND m and p-Xylene 2 04/07/01 DP 10.0 ug/Kg ND n-Butylbenzene 2 10.0 ug/Kg 04/07/01 DP NDI n-Propylbenzene 2 10.0 ug/Kg 04/07/01 DP ND o-Xylene DP 2 04/07/01 10.0 ug/Kg NDI p-Isopropyltoluene ND 2 10.0 ug/Kg 04/07/01 DP sec-Butylbenzene 04/07/01 DP 2 10.0 ug/Kg NDI tert-Butylbenzene ND 2 10.0 ug/Kg 04/07/01 DP trans-1,2-Dichloroethene 2 10.0 04/07/01 DP NDI ug/Kg trans-1,3-Dichloropropene 2 04/07/01 DP ND 10.0 ug/Kg trans-1,4-Dichloro-2-butene 8270C Acid/Base/Neutral Extractables DP 04/12/01 10 ug/Kg ND 3330.0 1,2,4-Trichlorobenzene ND 10 3330.0 ug/Kg 04/12/01 DP 1.2-Dichlorobenzene 04/12/01 DP ND 10 3330.0 ug/Kg 1,2-Diphenylhydrazine

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Facto





Client: City of Riverside (WW)
Client Sample ID: Annual Dry Sludge

Date Sampled: 04/04/2001

Time Sampled: Sampled By:

Date/Analyst DF DLR Units Result Analyte 8270C Acid/Base/Neutral Extractables DP ug/Kg 04/12/01 3330.0 ND 10 1.3-Dichlorobenzene DP 3330.0 ug/Kg 04/12/01 ND 10 1,4-Dichlorobenzene DP 04/12/01 ug/Kg ND 10 16650.0 2,4,5-Trichlorophenol 10 ug/Kg 04/12/01 DP ND 16650.0 2,4,6-Trichlorophenol DP 04/12/01 ND 10 3330.0 ug/Kg 2,4-Dichlorophenol 04/12/01 DP 3330.0 ug/Kg ND 10 2,4-Dimethylphenol 04/12/01 DP 10 ug/Kg ND 16650.0 2,4-Dinitrophenol DP ug/Kg 04/12/01 ND 10 3330.0 2,4-Dinitrotoluene DP ug/Kg 04/12/01 ND 10 3330.0 2,6-Dinitrotoluene DP ND 10 3330.0 ug/Kg 04/12/01 2-Chloronaphthalene DP 04/12/01 10 3330.0 ug/Kg ND 2-Chlorophenol DP 04/12/01 ND 10 3330.0 ug/Kg 2-Methylnaphthalene DP ug/Kg 04/12/01 ND 10 3330.0 2-Methylphenol 04/12/01 DP 16650.0 ug/Kg ND 10 2-Nitroaniline DP 3330.0 ug/Kg 04/12/01 ND 10 2-Nitrophenol 04/12/01 DP 3330.0 ug/Kg ND 10 3,3-Dichlorobenzidine ug/Kg 04/12/01 DP 16650.0 ND 10 3-Nitroaniline DP 04/12/01 ND 10 16650.0 ug/Kg 4.6-Dinitro-2-methylphenol 04/12/01 DP 3330.0 ug/Kg ND 10 4-Bromophenyl-phenylether 10 ug/Kg 04/12/01 DP ND 3330.0 4-Chloro-3-methylphenol DP ND 10 3330.0 ug/Kg 04/12/01 4-Chloroaniline 04/12/01 DP 3330.0 ug/Kg ND 10 4-Chlorophenyl-phenylether 04/12/01 DP ND 10 3330.0 ug/Kg 4-Methylphenol 04/12/01 DP 16650.0 ug/Kg ND 10 4-Nitroaniline DP 04/12/01 ND 10 16650.0 ug/Kg 4-Nitrophenol 04/12/01 DP ug/Kg 10 3330.0 ND Acenaphthene DP 04/12/01 ND 10 3330.0 ug/Kg Acenaphthylene DP 10 3330.0 ug/Kg 04/12/01 ND Anthracene DP 04/12/01 ND 10 3330.0 ug/Kg Benzidine DP 04/12/01 NDI 10 3330.0 ug/Kg Benzo(a)anthracene 04/12/01 DP ND 10 3330.0 ug/Kg Benzo(a)pyrene DP 04/12/01 ND 10 3330.0 ug/Kg Benzo(b)fluoranthene DP 04/12/01 10 3330.0 ug/Kg ND Benzo(g,h,i)perylene 04/12/01 DP ND 10 3330.0 ug/Kg Benzo(k)fluoranthene DP 04/12/01 ug/Kg ND 10 3330.0 Benzoic Acid ug/Kg 04/12/01 DP 10 3330.0 ND Benzyl alcohol DP 04/12/01 NDI 10 3330.0 ug/Kg Butylbenzylphthalate DP 04/12/01 10 3330.0 ug/Kg ND Chrysene

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Facto



#### ASSOCIATED LABORATORIES Analytical Results Report

Client: City of Riverside (WW)
Client Sample ID: Annual Dry Sludge

Date Sampled: 04/04/2001

Time Sampled: Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analys
cid/Base/Neutral Extractables	, MDI	10	3330.0	ug/Kg	04/12/01 DP
Di-n-butylphthalate	ND	10	3330.0	ug/Kg ug/Kg	04/12/01 DP
Di-n-octylphthalate	ND	10		ug/Kg ug/Kg	04/12/01 DP
Dibenz(a,h)anthracene	ND	10	3330.0 3330.0		04/12/01 DP
Dibenzofuran	ND	10		ug/Kg	04/12/01 DP
Diethylphthalate	ND	10	3330.0	ug/Kg	04/12/01 DP
Dimethylphthalate	ND	10	3330.0	ug/Kg	
Fluoranthene	ND	10	3330.0	ug/Kg	-
Fluorene	ND	10	3330.0	ug/Kg	04/12/01 DP
Hexachlorobenzene	ND	10	3330.0	ug/Kg	04/12/01 DP
Hexachlorobutadiene	ND	10	3330.0	ug/Kg	04/12/01 DP
Hexachlorocyclopentadiene	ND	10	3330.0	ug/Kg	04/12/01 DP
Hexachloroethane	ND	10	3330.0	ug/Kg	04/12/01 DP
Indeno(1,2,3-c,d)pyrene	ND	10	3330.0	ug/Kg	04/12/01 DP
Isophorone	ND	10	3330.0	ug/Kg	04/12/01 DP
N-Nitroso-di-n-propylamine	ND	10	3330.0	ug/Kg	04/12/01 DP
N-Nitrosodiphenylamine	ND	10	3330.0	ug/Kg	04/12/01 DP
N-nitrosodimethylamine	ND	10	3330.0	ug/Kg	04/12/01 DP
Naphthalene	ND	10	3330.0	ug/Kg	04/12/01 DP
Nitrobenzene	ND	10	3330.0	ug/Kg	04/12/01 DP
Pentachlorophenol	ND	10	16650.0	ug/Kg	04/12/01 DP
Phenanthrene	ND	10	3330.0	ug/Kg	04/12/01 DP
Phenol	ND	10	3330.0	ug/Kg	04/12/01 DP
Pyrene	NDI	10	3330.0	ug/Kg	04/12/01 DP
bis(2-Chloroethoxy)methane	ND	10	3330.0	ug/Kg	04/12/01 DP
bis(2-Chloroethyl)ether	ND	10	3330.0	ug/Kg	04/12/01 DP
bis(2-Chloroisopropyl) ether	i NDI	10	3330.0	ug/Kg	04/12/01 DP
bis(2-Ethylhexyl)phthalate	64,900	10	3330.0	ug/Kg	04/12/01 DP
DIS(2-Ethylicxy))philialate					
e, Oven Method  Moisture	16.63	1		%	04/11/01 LN

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Facto



#### Water Reclamation Division Public Works Department City of Riverside, CA

#### Monthly Sludge Disposal Report

March	2001
Month	Year

During this month, \_\_\_\_\_0 \_\_\_ tons of Biosolids were removed by our subcontractor, Synagro West, Inc., located at P.O. Box 7027, Corona, CA, 92878-7027. They are currently performing land application of the biosolids. During this month, \_\_\_\_0 \_\_\_ tons of Biosolids were removed by our subcontractor, One Stop Landscape Supply, located at 13024 San Timoteo Canyon Road, Redlands, CA 92373. They are currently performing composting with the biosolids.

Laboratory analysis data is attached certifying the Biosolids generated at this plant to be a clean Class B sludge.

Digester data is attached certifying the Biosolids have met the time and temperature requirements for Class B Pathogen Reduction through Anaerobic Digestion as well as the Vector Attraction requirement of more than 38% volatile solids reduction.

"I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)1 have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

Signature

Date

04/27/01

#### Water Reclamation Division Public Works Department City of Riverside, CA

#### Monthly Sludge Disposal Report

April_	2001
Month	Year

During this month, 0.0 tons of Biosolids were removed by our subcontractor, Synagro West, Inc., located at P.O. Box 7027, Corona, CA, 92878-7027. They are currently performing land application of the biosolids. During this month, 275.31 tons of Biosolids were removed by our subcontractor, One Stop Landscape Supply, located at 13024 San Timoteo Canyon Road, Redlands, CA 92373. They are currently performing composting with the biosolids.

Laboratory analysis data is attached certifying the Biosolids generated at this plant to be a clean Class B sludge.

Digester data is attached certifying the Biosolids have met the time and temperature requirements for Class B Pathogen Reduction through Anaerobic Digestion as well as the Vector Attraction requirement of more than 38% volatile solids reduction.

"I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)1 have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

Signature

Date

05/24/01

## Biosolids Processing Data March - April 2001

	Digester Influent	Digester Effluent	AverageVolatile	Belt Press Discharge	Digester #1	Digester #2	Digesto	er
	Volatile Suspended Solids	Volatile Suspended Solids	Suspended Solids Reduction	<u> </u>	Temperature	Temperature	Detention Tin	
DATE	%	%	<b>%</b>	Dry Tons	°C	°C	Measured	Required
3/1/01		67		24.67	37	37	14.2	9.0
3/2/01		64		26.72	37.5	37.5	14.4	7.5
3/3/01				0.00	37.5	37.5	16.8	7.5
3/4/01				5.12	37.56	37.66	16.5	7.2
3/5/01		66		24.94	37.6	37.6	13.9	7.2
3/6/01	80	68	47.4	21.09	37.5	37.5	15.6	7.5
3/7/01	80	67	50.5	23.00	37.5	37.25	13.3	7.9
3/8/01	78			13.16	37.5	37.5	14.3	7.5
3/9/01	81			11.79	37.5	37.5	14.5	7.5
3/10/01				0.00	37.5	37.5	14.2	7.5
3/11/01				21.52	37.5	37.3	13.6	7.8
3/12/01	81	66	54.9	24.00	37.5	37.5	13.4	7.5
3/13/01	80	66	52.7	25.51	37.5	37.5	12.9	7.5
3/14/01	81	66	53.9	27.71	37.5	37.5	15.2	7.5
3/15/01	81	67	52.3	40.38	37.6	37.6	15.6	7.2
3/16/01	82			11.79	37.5	37.6	16.2	7.4
3/17/01				0.00	37.5	37.5	14.8	7.5
3/18/01				0.00	37.3	37.3	13.5	8.1
3/19/01	80	67	48.8	24.24	37.5	37.5	12.7	7.5
3/20/01	80	66	51.8	23.30	37.5	37.5	12.9	7.5
3/21/01	79	65	52.0	22.67	37.5	37.5	12.8	7.5
3/22/01	80	65	54.2	20.97	37.5	37.5	12.4	7.5
3/23/01	79	63	55.2	25.13	37.5	37.5	12.6	7.5
3/24/01				10.97	37.5	37.5	12.9	7.5
3/25/01				23.69	37.5	37	12.2	8.3
3/26/01	81	67	53.4	24.51	37.16	37.16	12.6	8.5
3/27/01	79	65	52.0	24.64	37	37.5	12.9	8.3
3/28/01	81	66	53.6	38.36	37	37	13.5	9.0
3/29/01	80	66	52.8	20.17	37.5	37	13.8	8.3
3/30/01	80	65	53.7	23.94	37	37.5	14.0	8.3
3/31/01				0.00	37.5	37.5	14.0	7.5
4/1/01				12.43	37	37	14.0	9.0
4/2/01	81	62	60.8	22.46	37.5	37.5	14.8	7.5
4/3/01	81	65	56.2	25.17	37.5	37.5	14.8	7.5
4/4/01	82	66	58.7	24.87	37.5	37.5	14.4	7.5
4/5/01	81	66	55.3	17.46	37.5	37.5	14.4	7.5
4/6/01	82			21.64	37.5	37.5	16.5	7.5
4/7/01				0.00	37.5	37.5	19.3	7.5
4/8/01				19.54	37.65	37.5	18.7	7.3
4/9/01				16.04	38	37.5	19.0	6.8

## Biosolids Processing Data March - April 2001

	Digester Influent	Digester Effluent	AverageVolatile	Belt Press Discharge	Digester #1	Digester #2	Digesto	er
	Volatile Suspended Solids	Volatile Suspended Solids	Suspended Solids Reduction		Temperature	Temperature	Detention Tin	ne (days)
DATE	%	%	%	Dry Tons	°C	°C	Measured	Required
4/10/01	81	64	57.5	19.41	37.6	37.5	18.7	7.4
4/11/01	80	65	54.7	30.44	37.5	37.5	18.1	7.5
4/12/01	81			9.18	37.5	37.5	16.7	7.5
4/13/01	81			11.58	37.5	37.5	17.8	7.5
4/14/01				0.00	37.5	37.5	15.3	7.5
4/15/01	A4.44			9.35	37.56	37.483	14.0	7.4
4/16/01	82	65	59.5	23.19	37.5	37.5	14.4	7.5
4/17/01	80	66	50.6	28.04	37.5	37.5	14.3	7.5
4/18/01	82	67	54.0	34.55	37.6	37.6	14.2	7.2
4/19/01	82			11.70	37.8	35.8	14.1	9.6
4/20/01	81			11.45	37.5	37.5	13.5	7.5
4/21/01				0.00	37.5	37.5	12.9	7.5
4/22/01				12.99	37.25	37.3	16.0	8.2
4/23/01	81	68	50.3	26.28	37.5	37.5	15.3	7.5
4/24/01	81	67	51.2	27.45	37.73	37.5	12.3	7.2
4/25/01	81	66	54.2	37.08	37.56	37.56	14.9	7.3
4/26/01	81			20.57	37.5	37.5	15.3	7.5
4/27/01	81	66	53.5	23.27	37.7	37.5	16.0	7.2
4/28/01				0.00	37.5	37.5	16.0	7.5
4/29/01				0.00	37	37	16.3	9.0
4/30/01	80	66	51.6	20.06	37.8	37.8	16.1	6.6
Minimum	78.1	62.0	47.4	0	37	35.8	12.2	6.6
Maximu	82.5	68.0	60.8	40.38	38	37.8	19.3	9.6
Average	80.7	65.8	53.6	18.04	37.5	37.4	14.8	7.7
Total				1100.17				

# VECTOR ATTRACTION REDUCTION AND PATHOGEN REDUCTION 1. Facility Name Riverside Regional Water 2. Facility Owner's Name City of

1. Facility Name <u>Riverside Regional Water</u>		y of
Quality Control Plant		erside
Address5950 Acorn St.		
City <u>Riverside</u>	City <u>Riverside</u>	
StateCA Zip92504	StateCA Zip	92522
3. Monitoring Period: From 05/01/01 To 06/30/0	Reporting Period:  Ol. From 05/01/01 To	06/30/01
NPDES Permit No: <u>CA 0105350</u>		
5. Facility Latitude: 33° 57' 55" N	Facility Longitude:117° 27' 2	.8" W
Site Map Attached Yes	No	
<ul> <li>Attach a description of vector attraction required units or activities and describes operating parameters such as treatment capacity, slucture percent solids. Also include a description operating parameters.</li> <li>Number of pages attached</li> </ul>	procedures. Include target values for dge detention time, operating temper of standard procedures for regular expensions.	r all operating rature, pH, and valuation of the
VECTOR ATTRACTION REDUCTION	N - OPTION 1 [40 CFR 503.33	(B)(1)]
7. The City of Riverside utilizes Alternative 1 reduced by at least 38%) to demonstrate co.  a. Alternative 1 - Time and Temperature	ompliance with the regulations.	
Has the mass of volatile solids in the s	sewage sludge been reduced by at lea	ast 38%?
		yes no
		/
Frequency volatile solids reduction is	verified 41 per period.	
PATHOGENS REDUCTION CLASS	B - ALTERNATIVE 2 [40 CFR 5	503 32 (B) (3)1
3. Anaerobic Digestion a. Was the residence time for the sewage s at 20°C?		
u 20°C.		
		yes no
b. Provide the frequency of temperature m  1/shift, 3 s	·	nour, etc.)
c. Provide the average detention time and period 14.7 days at 37.8 °C.	digester operating temperature for the	ne reporting

#### MONITORING PERIOD

May 1, 2001 through June 30, 2001

Parameter	Table 3 Pollutant Concentrations	Maximum Pollutant Concentration MG/KG	Frequency of Analysis	Sample Type, Grab or Composite	Analytical Method
Arsenic	41	6.0	2	Composite	6010B ICP
Cadmium	39	9.31	2	Composite	6010B ICP
Chromium	1200	49.6	2	Composite	6010B ICP
Copper	1500	806	2	Composite	6010B ICP
Lead	300	51	2	Composite	6010B ICP
Mercury	17	0.60	2	Composite	245.5
Molybdenum		11.4	2	Composite	6010B ICP
Nickel	420	21.5	2	Composite	6010B ICP
Selenium	36	6.63	2	Composite	6010B ICP
Zinc	2800	991	2	Composite	6010B ICP

#### Certification

I certify under penalty of law that this document and all attachments were prepared under my supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information submitted, it is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information.

John A. Claus, Operations Manager	(909) 351-618/
Name and Title (Type or print)	Area Code and Phone
L. Cla	7/50/01
Signature	Date Signed

Table 3 concentration limits are referenced to demonstrate that the sludge is of exceptional quality in regards to metals.

Order #: 264220
Matrix: SOLID

Client: City of Riverside (WW)
Client Sample ID: Dry Sludge 05/08

**Date Sampled:** 05/08/2001

Moisture

Time Sampled: Sampled By:

Analyte	Result	DF	DLR	Units	Date/A	nalys
50.1 pH						
pH	7.25	1		NA	05/11/01	LN
	7.23	1		11/1		
15.5 Mercury in Solids by Manual Cold Vapor						
Mercury	0.30	1	0.12	mg/Kg	05/11/01	MJ
00.0 Nitrate as NO3 by Ion Chromatography						
Nitrate (as NO3)	ND	1	5.0	mg/Kg	05/12/01	CM
50.2 Ammonia by Distillation						
Ammonia-N	5000	1	5.0	mg/Kg	06/06/01	BS
Organic Nitrogen (TKN)  Total Kjeldahl Nitrogen (TKN)	44,300	1	5.0	mg/Kg mg/Kg	06/06/01	BS BS
10B ICP Metals - Solid/Liquid					00/00/01	
Arsenic	5.19	1	0.25	mg/Kg	05/14/01	KN
Cadmium	0.75	1	0.25 0.30	mg/Kg	05/14/01 05/14/01	KN KN
Cadmium Chromium	36.6	1	0.30 0.50	mg/Kg mg/Kg	05/14/01 05/14/01	KN KN
Cadmium Chromium Copper	0.75 36.6 560	1 1 1	0.30 0.50 0.50	mg/Kg mg/Kg mg/Kg	05/14/01 05/14/01 05/14/01	KN KN KN
Cadmium Chromium Copper Lead	0.75 36.6 560 39.9	1 1 1	0.30 0.50 0.50 0.25	mg/Kg mg/Kg mg/Kg mg/Kg	05/14/01 05/14/01 05/14/01 05/14/01	KN KN KN
Cadmium Chromium Copper Lead Molybdenum	0.75 36.6 560 39.9 9.75	1 1 1 1	0.30 0.50 0.50 0.25 0.65	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	05/14/01 05/14/01 05/14/01 05/14/01	KN KN KN KN
Cadmium Chromium Copper Lead Molybdenum Nickel	0.75 36.6 560 39.9 9.75 16.2	1 1 1 1 1	0.30 0.50 0.50 0.25 0.65 0.60	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	05/14/01 05/14/01 05/14/01 05/14/01 05/14/01 05/14/01	KN KN KN KN KN
Cadmium Chromium Copper Lead Molybdenum Nickel Phosphorus	0.75 36.6 560 39.9 9.75 16.2 32,380	1 1 1 1 1 1 10	0.30 0.50 0.50 0.25 0.65 0.60 100.0	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	05/14/01 05/14/01 05/14/01 05/14/01 05/14/01 05/14/01	KN KN KN KN KN KN
Cadmium Chromium Copper Lead Molybdenum Nickel Phosphorus Potassium	0.75 36.6 560 39.9 9.75 16.2 32,380 1,860	1 1 1 1 1 1 10	0.30 0.50 0.50 0.25 0.65 0.60 100.0 50.0	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	05/14/01 05/14/01 05/14/01 05/14/01 05/14/01 05/14/01 05/14/01	KN KN KN KN KN
Cadmium Chromium Copper Lead Molybdenum Nickel Phosphorus	0.75 36.6 560 39.9 9.75 16.2 32,380	1 1 1 1 1 1 10	0.30 0.50 0.50 0.25 0.65 0.60 100.0	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	05/14/01 05/14/01 05/14/01 05/14/01 05/14/01 05/14/01	KN KN KN KN KN KN

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Facto





LN

05/11/01

14.44

1

%

15-02-2002 17:02

FROM-Associated Laboratories

714-538-1209

T-715 P.002/003 F-724

Matrix: SOLID

Lead

Nickel

Molybdenum

410207

CINCILL CITY OF TOTACTOTAL ( AN AN )

Client Sample ID: Dry Sludge

Date Sampled: 06/05/2001

Time Sampled: Sampled By:

150.1 pH	Analyte	Result	DF	DLR	Units	Date/Analyst
245.5 Mercury in Solids by Manual Cold Vapor	<u>150.1 pH</u>		_			
	рН	6.97	1		NA NA	06/07/01 LN
	245 5 Maranes in California 10 10 10 10		1	·-		
300.0 Nitrate as NO3 by Ion Chromatography	243.5 Mercury in Solids by Manual Cold Vapor					
Nitrate (as NO3)   20	Mercury	0.60	1 -	0.12	mg/Kg	06/07/01 MJ
350.2 Ammonia by Distillation   7090	300.0 Nitrate as NO3 by Ion Chromatography					
	Nitrate (as NO3)	20		5.0	mg/Kg	06/19/01 CM
351.3 Total Kjeldahl Nitrogen (TKN)   39,900   1   5.0   mg/Kg   06/06/01   BS	350.2 Ammonia by Distillation					
Organic Nitrogen   39,900   1   5.0   mg/Kg   06/06/01   BS     Total Kjcldahl Nitrogen (TKN)   47,000   1   5.0   mg/Kg   06/06/01   BS     Of the state of th	Ammonia-N	7090	1	5.0	mg/Kg	06/06/01 BS
Total Kjcldahl Nitrogen (TKN)   47,000   1   5.0   mg/Kg   06/06/01   BS	351.3 Total Kjeldahl Nitrogen (TKN)					
Arsenic   6.0   1   0.25   mg/Kg   06/08/01   KN						
Arsenic         6.0         1         0.25         mg/Kg         06/08/01         KN           Cadmium         9.31         10         3.0         mg/Kg         06/08/01         KN           Chromium         49.6         10         5.0         mg/Kg         06/08/01         KN           Copper         806         10         5.0         mg/Kg         06/08/01         KN	1 otal Kjeldahl Nitrogen (TKN)	47,000	1	5.0	mg/Kg	06/06/01 BS
Cadmium         9.31         10         3.0         mg/Kg         06/08/01         KN           Chromium         49.6         10         5.0         mg/Kg         06/08/01         KN           Copper         806         10         5.0         mg/Kg         06/08/01         KN	6010B ICP Metals - Solid/Liquid					
Cadmium         9.31         10         3.0         mg/Kg         06/08/01         KN           Chromium         49.6         10         5.0         mg/Kg         06/08/01         KN           Copper         806         10         5.0         mg/Kg         06/08/01         KN	<b>t</b>	6.0	1	0.25	mg/Kg	06/08/01 KN
Copper 806 10 5.0 mg/Kg 06/08/01 KN						
			10	5.0	mg/Kg	06/08/01 KN
	Copper	806	10	5.0	mg/Kg	06/08/01 KN

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Facto

## ASSOCIATED LABORATORIES Analytical Results Report



 $\overline{KN}$ 

KN

KN

51

11.4

21.5

1

10

10

0.25

6.5

6.0

mg/Kg

mg/Kg

mg/Kg

06/08/01

06/08/01

06/08/01

15-02-2002 17:02

FROM-Associated Laboratories

714-538-1209

T-715 P.003/003 F-724

Order #: |

2/0389 Matrix: SOLID

CHERT: City of Kiverside (ww)

Client Sample ID: Dry Sludge

Date Sampled: 06/05/2001

Time Sampled: Sampled By:

Analyte	Result	DF	DLR	Units	Date/Analyst	
CP Metals - Solid/Liquid						

6010B IC

Phosphorus	38,400	10	100.0	mg/Kg	06/08/01	KN
Potassium	2880	10	500.0	mg/Kg	06/08/01	KN
Selenium Zinc	5.54	1	0.2	mg/Kg	06/08/01	KN
	991	10	3.0	mg/Kg	06/08/01	KN

#### Moisture, Oven Method

Moisture	 	 ,	20.001	1			
	 •	 	20.00		%	06/07/01	GP

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Facto



#### Water Reclamation Division Public Works Department City of Riverside, CA

#### Monthly Sludge Disposal Report

<u> </u>	_2001
Month	Year

During this month, 663.42 tons of Biosolids were removed by our subcontractor, Synagro West, Inc., located at P.O. Box 7027, Corona, CA, 92878-7027. They are currently performing land application of the biosolids. During this month, 0.0 tons of Biosolids were removed by our subcontractor, One Stop Landscape Supply, located at 13024 San Timoteo Canyon Road, Redlands, CA 92373. They are currently performing composting with the biosolids.

Laboratory analysis data is attached certifying the Biosolids generated at this plant to be a clean Class B sludge.

Digester data is attached certifying the Biosolids have met the time and temperature requirements for Class B Pathogen Reduction through Anaerobic Digestion as well as the Vector Attraction requirement of more than 38% volatile solids reduction.

"I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)1 have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

Signature

Date

06/21/01

#### Water Reclamation Division Public Works Department City of Riverside, CA

#### Monthly Sludge Disposal Report

<u>June</u>	2001
Month	Year

During this month, 164.55 tons of Biosolids were removed by our subcontractor, Synagro West, Inc., located at P.O. Box 7027, Corona, CA, 92878-7027. They are currently performing land application of the biosolids. During this month, 552.78 tons of Biosolids were removed by our subcontractor, One Stop Landscape Supply, located at 13024 San Timoteo Canyon Road, Redlands, CA 92373. They are currently performing composting with the biosolids.

Laboratory analysis data is attached certifying the Biosolids generated at this plant to be a clean Class B sludge.

Digester data is attached certifying the Biosolids have met the time and temperature requirements for Class B Pathogen Reduction through Anaerobic Digestion as well as the Vector Attraction requirement of more than 38% volatile solids reduction.

"I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)1 have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

Signature

Date

07/30/01

## **Biosolids Processing Data May - June 2001**

	Digester Influent	Digester Effluent	AverageVolatile	Belt Press Discharge	Digester #1	Digester #2	Digesto	er
	Volatile Suspended Solids	Volatile Suspended Solids	Suspended Solids Reduction		Temperature	Temperature	Detention Tin	ne (days)
DATE	%	%	7/0	Dry Tons	°C	°C	Measured	Required
5/1/01	81	68	49.7	24.74	38	38	15.9	6.0
5/2/01	81	66	54.8	23.37	37.4	37.56	16.4	7.6
5/3/01	81	67	51.0	35.06	38	38	16.2	6.0
5/4/01		66		21.31	38	38	15.8	6.0
5/5/01				0.00	38	38	15.7	6.0
5/6/01				0.00	37.75	37.75	15.2	6.8
5/7/01	80	67	50.3	23.79	38	38	14.8	6.0
5/8/01	80	67	48.3	27.17	38	38	14.6	6.0
5/9/01	80	67	50.6	42.67	37.5	37.5	14.5	7.5
5/10/01	80	66	51.9	26.05	38	38	14.4	6.0
5/11/01	80	67	50.1	24.53	38	38	14.1	6.0
5/12/01				0.00	38	38	14.1	6.0
5/13/01				0.00	37.5	37.5	14.0	7.5
5/14/01	80	66	52.7	25.79	38	38	13.9	6.0
5/15/01	80	66	52.2	21.56	38	38	14.1	6.0
5/16/01	80	66	51.5	23.98	37.5	37.5	13.8	7.5
5/17/01	79	65	50.1	23.67	37.6	37.6	14.6	7.2
5/18/01	80	66	50.5	24.56	38	38	14.2	6.0
5/19/01				0.00	38	38	14.3	6.0
5/20/01				0.00	37.6	37.6	14.1	7.2
5/21/01	79	66	47.9	26.05	37.8	37.8	13.7	6.6
5/22/01	80	67	48.4	26.81	38	38	13.3	6.0
5/23/01	80	65	54.3	34.88	37.5	37.5	13.3	7.5
5/24/01	80	67	49.5	21.72	37.8	37.8	13.2	6.6
5/25/01	79	66	48.8	25.23	38	38	13.2	6.0
5/26/01				0.00	38	38	13.6	6.0
5/27/01				13.98	37.5	37.5	13.6	7.5
5/28/01	81	64	56.9	24.33	37.8	37.8	13.6	6.6
5/29/01	79	66	47.6	25.50	38	38	13.1	6.0
5/30/01	80	65	54.0	28.01	37.3	37.5	12.9	7.8
5/31/01	80	67	49.2	20.85	37.5	37.5	12.7	7.5
6/1/01	80	66	52.0	24.93	37.8	37.5	13.9	7.1
6/2/01				0.00	38	38	14.0	6.0
6/3/01				19.69	37.5	37.5	14.3	7.5
6/4/01	79	65	52.1	24.87	37.8	37.6	14.5	6.9
6/5/01		65		20.32	38	38	15.3	6.0
6/6/01	80	65	52.4	29.33	37.5	37.5	14.1	7.5
6/7/01	80	65	53.7	24.43	38	38	15.4	6.0
6/8/01	80	67	49.7	10.72	37.8	37.8	15.5	6.6
6/9/01				0.00	37	37	15.8	9.0

# **Biosolids Processing Data May - June 2001**

	Digester Influent	Digester Effluent	AverageVolatile	Belt Press Discharge	Digester #1	Digester #2	Digest	
	Volatile Suspended Solids	Volatile Suspended Solids	Suspended Solids Reduction		Temperature	Temperature	Detention Tir	
DATE	<del>-</del> %	%		Dry Tons	°C	°C	Measured	Required
6/10/01				0.00	38	37	15.7	7.5
6/11/01	80	67	50.3	22.27	38	38	15.6	6.0
6/12/01	80	65	54.5	26.71	38	38	16.1	6.0
6/13/01	77	66	43.1	21.49	37.8	37.8	16.2	6.6
6/14/01	80	66	51.0	19.78	37.5	37.5	16.4	7.5
6/15/01	80	66	51.5	24.36	38	37.5	16.4	6.8
6/16/01				0.00	38	38	16.5	6.0
6/17/01				0.00	37.6	37.6	15.9	7.2
6/18/01	80	65	54.0	24.28	37.8	37.8	16.0	6.6
6/19/01	80	65	53.6	25.28	38	38	15.7	6.0
6/20/01	79	66	48.7	30.90	38	38	16.1	6.0
6/21/01	81	68	48.8	19.01	38	38	16.2	6.0
6/22/01	79			11.15	38	38	15.7	6.0
6/23/01				0.00	38	38	15.7	6.0
6/24/01				0.00	37.83	37.83	13.6	6.5
6/25/01	80	68	48.5	24.63	38	38	15.6	6.0
6/26/01	81	65	55.0	21.96	37.9	37.9	15.1	6.3
6/27/01	80	66	52.0	32.06	37.3	37.5	14.4	7.8
6/28/01	79	66	48.6	18.67	37.6	37.6	14.6	7.2
6/29/01	80	67	49.5	24.51	37.8	37.8	14.6	6.6
6/30/01				0.00	38	38	13.9	6.0
Minimum	77.3	64.0	43.1	0	37	37	12.7	6.0
Maximu	81.1	68.0	56.9	42.67	38	38	16.5	9.0
Average	79.9	66.1	51.0	18.31	37.8	37.8	14.7	6.6
Total				1116.95				

## VECTOR ATTRACTION REDUCTION AND PATHOGEN REDUCTION

	2. Facility Owner's Name City of
Quality Control Plant	
Address <u>5950 Acorn St.</u>	Address 3900 Main Street
City Riverside 02504	City Riverside
State <u>CA</u> Zip <u>92504</u>	StateCA Zip 92522
3. Monitoring Period:	Reporting Period:
From <u>07/01/01</u> To <u>08/31/01</u>	From <u>07/01/01</u> To <u>08/31/01</u>
4. NPDES Permit No: <u>CA 0105350</u>	Sludge Permit No: N/A
5. Facility Latitude: 33° 57' 55" N	Facility Longitude: 117° 27' 28" W
Site Map Attached Yes	No
units or activities and describes operating pr parameters such as treatment capacity, sludg percent solids. Also include a description of operating parameters.	uction procedures that identifies specific treatment rocedures. Include target values for all operating ge detention time, operating temperature, pH, and f standard procedures for regular evaluation of the  Schematic diagram or drawing attached.
VECTOR ATTRACTION REDUCTION	- OPTION 1 [40 CFR 503.33 (B)(1)]
7. The City of Riverside utilizes Alternative 1	(Mass of volatile solids in the sewage sludge been
reduced by at least 38%) to demonstrate con	
•	
a. Alternative 1 - Time and Temperature	
Has the mass of volatile solids in the se	wage sludge been reduced by at least 38%?
	yes no
	✓
Frequency volatile solids reduction is v	erified 39 per period.
	B - ALTERNATIVE 2 [40 CFR 503.32 (B) (3)]
8. Anaerobic Digestion	1.1
	udge between 15 days at 35°C to 55°C and 60 days
at 20°C?	
	yes no
	1
- · · · · · · · · · · · · · · · · · · ·	asurements (i.e. continuous, 1 per hour, etc.) shifts/day
c. Provide the average detention time and d period 15.6 days at 38.1 °C.	igester operating temperature for the reporting
portoa 15.0 days at 50.1 C.	

#### MONITORING PERIOD

July 1, 2001 through August 31, 2001

Parameter	Table 3 Pollutant Concentrations	Maximum Pollutant Concentration MG/KG	Frequency of Analysis	Sample Type, Grab or Composite	Analytical Method
Arsenic	41	6.48	2	Composite	6010B ICP
Cadmium	39	8.38	2	Composite	6010B ICP
Chromium	1200	51.3	2	Composite	6010B ICP
Copper	1500	836	2	Composite	6010B ICP
Lead	300	54.1	2	Composite	6010B ICP
Mercury	17	0.38	2	Composite	245.5
Molybdenum		8.68	2	Composite	6010B ICP
Nickel	420	22	2	Composite	6010B ICP
Selenium	36	7.35	2	Composite	6010B ICP
Zinc	2800	1020	2	Composite	6010B ICP

#### Certification

I certify under penalty of law that this document and all attachments were prepared under my supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information submitted, it is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information.

John A. Claus, Operations Manager

Name and Title (Type or print)

Area Code and Phone

Signature

Date Signed

Table 3 concentration limits are referenced to demonstrate that the sludge is of exceptional quality in regards to metals.





AIS 2 2 2001

#### ASSOCIATED LABORATORIES

806 North Batavia • Orange, California 92868 • 714/771-6900

FAX 714/538-1209

**CLIENT** 

City of Riverside Diana Whitney 5950 Acorn St. Riverside, Ca. 92504

LAB NO.

LR75619

**REPORTED** 

08/16/01

**SAMPLE** 

Solid

**RECEIVED** 

Method

07/03/01

**IDENTIFICATION** 

Dry Sludge

Date Collected 07/02/01 @ None Given

BASED ON SAMPLE

As Submitted

		_		ricciioa		
	Date		<b>EPA</b>	Detection	n	
<u>Constituent</u>	Analy		<u>Method</u>	<u>Limit</u>	Resul	<u>ts</u>
Antimony	07/06		6010B	3	ND	mg/kg
Arsenic	07/11		6010B	0.25	6.91	mg/kg
Beryllium	07/11		6010	0.50	ND	mg/kg
Cadmium	07/11		6010B	0.30	5.78	mg/kg
Chromium	07/11		6010B	0.50	51.3	mg/kg
Copper	07/11	KN	6010B	0.50	836	mg/kg
Lead	07/06		6010B	0.25	54.1	mg/kg
Mercury	07/06		245.5	0.12	0.37	mg/kg
Molybdenum	07/11	KN	6010B	0.65		mg/kg
Nickel	07/11	KN	6010B	0.60	22.0	mg/kg
Phosphorus	07/11	KN	6010B	10.0	41,800	mg/kg
Potassium	07/11	KN	6010B	50.0	2,750	mg/kg
Selenium	07/06	NK	6010B	0.20		mg/kg
Silver	07/11	KN	6010B	0.50	34.9	mg/kg
Thallium	07/06	NK	6010B	1.0	ND	mg/kg
Zinc	07/11	KN	6010B	0.30	1,010	mg/kg
Cyanide	07/12	HK	335.2	0.5	•	mg/kg
Nitrate	07/07		300.0	5.0	5	mg/kg
Ammonia	07/23	BS	350.2	5.0	7,800	mg/kg
Total Kjeldahl Nitrogen	07/19	BS	351.3	5.0	46,100	mg/kg
Percent Moisture	07/16				10.10	**************************************
рН	07/16		150.1	N/A	6.85	Ū
2,3,7,8-TCDD	07/15		1613	0.9	ND	pg/g
Acrolein	07/06		8260	200.0	ND	μg/kg
Acrylonitrile	07/06		8260	5.0	ND	μg/kg
Benzene	07/06		8260	5.0	ND	μg/kg
Bromoform	07/06		8260	5.0	ND	μg/kg
Carbon	.,				112	μg/ πg
Tetrachloride	07/06	DP	8260	5.0	ND	μg/kg
Chlorobenzene	07/06		8260	5.0	ND	μg/kg μg/kg
Chlorodibromo-	0.,00		2200	5.0	1412	μ9/ 129
methane	07/06	DP	8260	5.0	TESTING & CO	ONSULTING
The reports of the Associated Laboratories are confid	•					Chemical.

The reports of the Associated Laboratories are confidential property of our clients and name between the confidential property of our clients and name between the confidential property of our clients and our written permission. This is for the mutual protection of the public, our clients, and ourselves.

Microbiological •

Environmental •

Client: City of Riverside Lab No. LR75619

No. LR75619			M-4-1		
	Date /	<b>BPA</b>	Method Detection		
Constituent	Date/ <u>Analyst</u>	Method	Limit	Resu	lts
<u>Constituent</u> Chlorodibromo-	Allalyst	MCCHOG	HIMLU	RODU	100
methane	07/06 DP	8260	5.0	ND	μg/kg
Chloroethane	07/06 DP	8260	5.0	ND	μg/kg
2-Chloroethyl-	0,,00 22	0200			, 5. 5
vinyl ether	07/06 DP	8260	5.0	ND	μg/kg
Chloroform	07/06 DP	8260	5.0	ND	μg/kg
Dichlorobromo-	07,00 22	0200			<i>F.S. S</i>
methane	07/06 DP	8260	5.0	ND	μg/kg
1,1-Dichloro-	07700 DI	0200			<i>#313</i>
ethane	07/06 DP	8260	5.0	ND	μg/kg
1,2-Dichloro-	07700 BI	0200			<i>P.</i> 5, 5
ethane	07/06 DP	8260	5.0	ND	μg/kg
1,1-Dichloro-	07700 DI	0200			F-57 5
ethylene	07/06 DP	8260	5.0	ND	μg/kg
1,2-Dichloro-	07700 DI	0200	3.0		P373
•	07/06 DP	8260	5.0	ND	μg/kg
propane 1,3-Dichloro-	07700 DI	0200	3.0	212	و روم
•	07/06 DP	8260	5.0	ND	μg/kg
propylene	07/06 DP	8260	5.0	ND	μg/kg
Ethylbenzene	07/06 DF 07/06 DP	8260	5.0	ND	μg/kg
Methyl bromide	07/06 DF 07/06 DP	8260	5.0	ND	μg/kg
Methyl chloride	07/00 DF	0200	3.0	112	μ9/129
Methylene	07/06 DP	8260	5.0	ND	μg/kg
chloride	07/06 DF	6200	3.0	1115	μ9/12
1,1,2,2-Tetra-	07/06 DP	8260	5.0	ND	μg/kg
chloroethane	07/06 DP	6200	3.0	ND	μg/ πg
Tetrachloro-	07/06 DP	8260	5.0	ND	μg/kg
ethylene	07/06 DP 07/06 DP	8260	5.0	ND	μg/kg μg/kg
Toluene	07/06 DF	0200	3.0	ND	μg/ πg
1,2-Trans-dichloro-	07/06 DP	8260	5.0	ND	μg/kg
ethylene	07/06 DP	0200	5.0	ND	$\mu g / \kappa g$
1,1,1-Trichloro-	07/06 DD	8260	5.0	ND	μg/kg
ethane	07/06 DP	8280	5.0	ND	$\mu g / \kappa g$
1,1,2-Trichloro-	07/06 DD	0060	F 0	ND	μg/kg
ethane	07/06 DP	8260	5.0	ND	μg/kg
Trichloro-	07/05 77	2262	г о	NID	- a /lea
ethylene	07/06 DP	8260	5.0	ND	μg/kg
Vinyl chloride	07/06 DP	8260	5.0	ND	μg/kg
2-Chlorophenol	07/16 DP	8270	333.0	ND	μg/kg
2,4-Dichloro-					/2
phenol	07/16 DP	8270	333.0	ND	μg/kg
2,4-Dimethyl-	,				/2
phenol	07/16 DP	8270	333.0	ND	μg/kg
2-Methyl-4,6,					/2
Dinitrophenol	07/16 DP	8270	333.0	ND	μg/kg
2,4-Dinitro-					4-
phenol	07/16 DP	8270	333.0	ND	μg/kg
2-Nitrophenol	07/16 DP	8270	333.0	ND	μg/kg
4-Nitrophenol	07/16 DP	8270	333.0	ND	μg/kg
3-Methyl-4-					
chlorophenol	07/16 DP	8270	333.0	ND	μg/kg
Pentachloro-	·				
phenol	07/16 DP	8270	333.0	ND	μg/kg
Phenol	07/16 DP	8270	333.0	16,400	μg/kg
	•				

Client: City of Riverside Lab No. LR75619

b No. LR75619			Method		
	Date/	<b>EPA</b>	Detection	L	
Constituent	Analyst	Method	Limit	Resu	lts
2,4,6-Trichloro-					
phenol	07/16 DP	8270	333.0	ND	μg/kg
Acenaphthene	07/16 DP	8270	333.0	ND	μg/kg
Acenaphthylene	07/16 DP	8270	333.0	ND	μg/kg
Anthracene	07/16 DP	8270	333.0	ND	μg/kg
Benzidine	07/16 DP	8270	333.0	ND	μg/kg
Benzo(a)-					
anthracene	07/16 DP	8270	333.0	ND	μg/kg
Benzo(a)-					
pyrene	07/16 DP	8270	333.0	ND	μg/kg
Benzo(b)					/2
fluoranthene	07/16 DP	8270	333.0	ND	$\mu$ g/kg
Benzo(g,h,i)					/1
perylene	07/16 DP	8270	333.0	ND	μg/kg
Benzo(k)					/2
fluoranthene	07/16 DP	8270	333.0	ND	μg/kg
Bis(2-chlorothoxy)	,				/1
methane	07/16 DP	8270	333.0	ND	μg/kg
Bis(2-chloroethyl)	,				/1
ether	07/16 DP	8270	333.0	ND	μg/kg
Bis(2-chloroisopropyl)				3770	/1
ether	07/16 DP	8270	333.0	ND	μg/kg
Bis(2-ethylhexyl)				00 100	/1
phthalate	07/16 DP	8270	333.0	89,100	μg/kg
2-Bromophenyl phenyl	/	2272	222.0	M	/1
ether	07/16 DP	8270	333.0	ND	μg/kg
Butylbenzyl-					/1
phthalate	07/16 DP	8270	333.0	ND	μg/kg
2-Chloro-					/1
napthalene	07/16 DP	8270	333.0	ND	μg/kg
2-Chlorophenyl phenyl					/1
ether	07/16 DP	8270	333.0	ND	μg/kg
Chrysene	07/16 DP	8270	333.0	ND	μg/kg
Dibenzo(a,h)					/2
anthracene	07/16 DP	8270	333.0	ND	μg/kg
1,2-Dichloro-		•			/2
benzene	07/16 DP	8270	333.0	ND	μg/kg
1,3-Dichloro-					/2
benzene	07/16 DP	8270	333.0	ND	μg/kg
1,4-Dichloro-					
benzene	07/16 DP	8270	333.0	ND	μg/kg
3,3-Dichloro					•-
benzidine	07/16 DP	8270	333.0	ND	μg/kg
Diethylphthalate	07/16 DP	8270	333.0	ND	μg/kg
Dimethyl-					
phthalate	07/16 DP	8270	333.0	ND	μg/kg
Di-n-butyl-					
phthalate	07/16 DP	8270	333.0	ND	μg/kg
2,4-Dinitro-					_
toluene	07/16 DP	8270	333.0	ND	μg/kg
2,6-Dinitro-					_
toluene	07/16 DP	8270	333.0	ND	μg/kg

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Client: City of Riverside Lab No. LR75619

No. LR75619			Makhad			
	Date/	EPA	Method Detection	<b>n</b>		
Constituent Constituent	<u> Analyst</u>	<u>Method</u>	<u>Limit</u>	Resu	<u>ılts</u>	
Di-n-octyl-					/1	
phthalate	07/16 DP	8270	333.0	ND	$\mu g/kg$	
1,2-Diphenyl-				NID	~ /l-~	
hydrazine	07/16 DP	8270	333.0	ND	μg/kg	
Fluoranthene	07/16 DP	8270	333.0	ND	μg/kg	
Fluorene	07/16 DP	8270	333.0	ND	μg/kg	
Hexachloro-				NTD	~ /1-~	
benzene	07/16 DP	8270	333.0	ND	μg/kg	
Hexachloro-				NID	~ /l-~	
butadiene	07/16 DP	8270	333.0	ND	μg/kg	
Hexachlorocylo-			222.2	NTO	~ /lr~	
pentadiene	07/16 DP	8270	333.0	ND	μg/kg	
Hexachloro-				MI	~ /l-~	
ethane	07/16 DP	8270	333.0	ND	$\mu { m g/kg}$	
Indeno $(1,2,3-cd)$			222 2	NTD	~ /lr~	
pyrene	07/16 DP	8270	333.0	ND	μg/kg	
Isophorone	07/16 DP	8270	333.0	ND	μg/kg	
Naphthalene	07/16 DP	8270	333.0	ND	μg/kg	
Nitrobenzene	07/16 DP	8270	333.0	ND	μg/kg	
N-nitrosodi-			222 0	NII	μg/kg	
methylamine	07/16 DP	8270	333.0	ND	μg/kg	
N-Nitrosodi-			222 0	NID	a /lea	
n-propylamine	07/16 DP	8270	333.0	ND	μg/kg	
N-Nitrosodi-	•		222 0	MID	a/ka	
phenylamine	07/16 DP	8270	333.0	ND	μg/kg ug/kg	
Phenanthrene	07/16 DP	8270	333.0	ND	μg/kg	
Pyrene	07/16 DP	8270	333.0	ND	μg/kg	
1,2,4-Trichloro-			222.0	ATTO	a /lea	
benzene	07/16 DP	8270	333.0	ND	μg/kg	
Aldrin	08/10 SD	8081	0.002	ND	mg/kg	
Alpha BHC	08/10 SD	8081	0.002	ND	mg/kg	
Beta BHC	08/10 SD	8081	0.003	ND	mg/kg	
Delta BHC	08/10 SD	8081	0.005	ND	mg/kg	
Gamma BHC	08/10 SD	8081	0.003	ND	mg/kg	
Chlorodane	08/10 SD	8081	0.008	ND	mg/kg	
4'4-DDT	08/10 SD	8081	0.003	ND	mg/kg	
4'4-DDE	08/10 SD	8081	0.003	ND	mg/kg	
4'4-DDD	08/10 SD	8081	0.004	ND	mg/kg	
Dieldrin	08/10 SD	8081	0.003	ND	mg/kg	
Alpha	_				/3	
Endosulfan	08/10 SD	8081	0.004	ND	mg/kg	
Beta					/2	
Endosulfan	08/10 SD	8081	0.003	ND	mg/kg	
Endosulfan					- /1	
Sulfate	08/10 SD	8081	0.003	ND	mg/kg	
Endrin	08/10 SD	8081	0.004	ND	mg/kg	
Endrin Aldehyde	08/10 SD	8081	0.004	ND	mg/kg	
Heptachlor	08/10 SD	8081	0.002	ND	mg/kg	
Heptachlor	•				*-	
Epoxide	08/10 SD	8081	0.003	ND	mg/kg	
<b></b>	•					

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Client: City of Riverside Lab No. LR75**b**19

			Method		
	Date/	<b>BPA</b>	Detection		
Constituent	<u> Analyst</u>	<u>Method</u>	Limit	Res	<u>ults</u>
PCB 1016	07/11 SD	8082	0.033	ND	mg/kg
PCB 1221	07/11 SD	8082	0.06	ND	mg/kg
PCB 1232	07/11 SD	8082	0.04	ND	mg/kg
PCB 1242	07/11 SD	8082	0.02	ND	mg/kg
PCB 1248	07/11 SD	8082	0.08	ND	mg/kg
PCB 1254	07/11 SD	8082	0.01	ND	mg/kg
PCB 1260	07/11 SD	8082	0.025	ND	mg/kg
Toxaphene	08/10 SD	8081	0.24	ND	mg/kg

Samples expressed on a "Dry Weight Basis"

ASSOCIATED LABORATORIES, by:

Robert A. Webber Vice President

RAW/gk

Unless notified in writing, all samples will be discarded by appropriate disposal protocol 30 days from date reported. NOTE:

Order #: 284807

Matrix: SOLID

Client: City of Riverside (WW)
Client Sample ID: August Dry Sludge

Date Sampled: 08/07/2001

Moisture

Time Sampled: Sampled By:

Analyte		Result	DF	DLR	Units	Date/An	alys
0.1 pH		( 201			DIA.	08/09/01	LN
рН		6.38	1		NA	08/09/01	LIN
5.5 Mercury in Solids by Manual Cold Vapor							
Mercury		0.38	1	0.12	mg/Kg	08/09/01	MJ
0.0 Nitrate as NO3 by Ion Chromatography							
Nitrate (as NO3)		26	1	5.0	mg/Kg	08/24/01	CM
0.2 Ammonia by Distillation							
Ammonia-N		5170	1	5.0	mg/Kg	08/27/01	МВ
1.3 Total Kjeldahl Nitrogen (TKN)  Organic Nitrogen		31,800	1	5.0	mg/Kg	08/27/01	MB
Total Kjeldahl Nitrogen (TKN)		37,000	1	5.0	mg/Kg	08/10/01	BS
10B ICP Metals - Solid/Liquid							
		6.48	1	0.50	mg/Kg	08/12/01	
Arsenic	i i	0.70		0.50	1115/115	08/13/01	MZ
Arsenic Cadmium	L	8.38	10	5.0	mg/Kg	08/13/01	
							KN
Cadmium Chromium		8.38	10	5.0	mg/Kg	08/13/01	KN KN
Cadmium		8.38 46.3	10	5.0	mg/Kg mg/Kg	08/13/01 08/13/01	KN KN
Cadmium Chromium Copper		8.38 46.3 791	10 10 10	5.0 10.0 10.0	mg/Kg mg/Kg mg/Kg	08/13/01 08/13/01 08/13/01	KN KN KN
Cadmium Chromium Copper Lead		8.38 46.3 791 52.2	10 10 10 1	5.0 10.0 10.0 0.50	mg/Kg mg/Kg mg/Kg mg/Kg	08/13/01 08/13/01 08/13/01 08/13/01	KN KN KN KN
Cadmium Chromium Copper Lead Molybdenum		8.38 46.3 791 52.2 ND	10 10 10 1 10	5.0 10.0 10.0 0.50 10.0	mg/Kg mg/Kg mg/Kg mg/Kg	08/13/01 08/13/01 08/13/01 08/13/01 08/13/01	KN KN KN KN KN
Cadmium Chromium Copper Lead Molybdenum Nickel		8.38 46.3 791 52.2 ND 20.4	10 10 10 1 10 10	5.0 10.0 10.0 0.50 10.0 15.0	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	08/13/01 08/13/01 08/13/01 08/13/01 08/13/01	KN KN KN KN KN KN
Cadmium Chromium Copper Lead Molybdenum Nickel Phosphorus		8.38 46.3 791 52.2 ND 20.4 43,000	10 10 10 1 10 10 10	5.0 10.0 10.0 0.50 10.0 15.0 100.0	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	08/13/01 08/13/01 08/13/01 08/13/01 08/13/01 08/13/01	KN KN KN KN KN

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Facto



LN

08/09/01

1

5.35

%

#### Monthly Sludge Disposal Report

July 2001
Month Year

During this month, 1,226.19 tons of Biosolids were removed by our subcontractor, Synagro West, Inc., located at P.O. Box 7027, Corona, CA, 92878-7027. They are currently performing land application of the biosolids. During this month, 0.0 tons of Biosolids were removed by our subcontractor, One Stop Landscape Supply, located at 13024 San Timoteo Canyon Road, Redlands, CA 92373. They are currently performing composting with the biosolids.

Laboratory analysis data is attached certifying the Biosolids generated at this plant to be a clean Class B sludge.

Digester data is attached certifying the Biosolids have met the time and temperature requirements for Class B Pathogen Reduction through Anaerobic Digestion as well as the Vector Attraction requirement of more than 38% volatile solids reduction.

"I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)1 have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

Signature

Date

08/29/01

#### Monthly Sludge Disposal Report

<u> </u>	2001
Month	Year

During this month, 0.0 tons of Biosolids were removed by our subcontractor, Synagro West, Inc., located at P.O. Box 7027, Corona, CA, 92878-7027. They are currently performing land application of the biosolids. During this month, 388.66 tons of Biosolids were removed by our subcontractor, One Stop Landscape Supply, located at 13024 San Timoteo Canyon Road, Redlands, CA 92373. They are currently performing composting with the biosolids.

Laboratory analysis data is attached certifying the Biosolids generated at this plant to be a clean Class B sludge.

Digester data is attached certifying the Biosolids have met the time and temperature requirements for Class B Pathogen Reduction through Anaerobic Digestion as well as the Vector Attraction requirement of more than 38% volatile solids reduction.

"I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)1 have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

Signature

Date

09/25/01

# **Biosolids Processing Data July - August 2001**

	Digester Influent	Digester Effluent	AverageVolatile	Belt Press Discharge	Digester #1	Digester #2	Digesto	er
	Volatile Suspended Solids	Volatile Suspended Solids	Suspended Solids Reduction		Temperature	Temperature	Detention Tin	
DATE	%	%	<b>%</b>	Dry Tons	°C	°C	Measured	Required
7/1/01				0.00	38	38.16	14.2	5.8
7/2/01	81	67	53.5	18.46	38	38	14.6	6.0
7/3/01	79	65	49.7	21.33	38	38	14.4	6.0
7/4/01	80	64	55.1	25.73	38	38.25	14.6	5.6
7/5/01	81	65	57.1	22.87	38	38	15.2	6.0
7/6/01	80	66	52.3	19.05	38	38	15.2	6.0
7/7/01				0.00	38	38	15.3	6.0
7/8/01				19.58	38	38	15.0	6.0
7/9/01	81	67	52.3	22.25	38	38	15.1	6.0
7/10/01	80	65	53.4	17.16	38	38	15.2	6.0
7/11/01	80	65	54.2	24.17	38	38	15.2	6.0
7/12/01	80	66	51.3	21.06	38	38	15.2	6.0
7/13/01	80	65	53.2	11.45	38	38	17.3	6.0
7/14/01				0.00	38	38	16.9	6.0
7/15/01				18.51	38	38	16.2	6.0
7/16/01	80	64	56.3	23.13	38	38	16.4	6.0
7/17/01	80	66	52.9	25.99	38.1	38.1	16.2	5.7
7/18/01	80	67	49.6	34.59	38	38	15.9	6.0
7/19/01	81	66	53.1	18.26	38	38	16.5	6.0
7/20/01	79			10.60	38	38	15.7	6.0
7/21/01				0.00	38	38	15.8	6.0
7/22/01				0.00	38	38	15.0	6.0
7/23/01	79	65	49.8	22.11	38	38	15.3	6.0
7/24/01	79	65	51.5	22.16	38	38	15.5	6.0
7/25/01	79	66	49.8	31.26	38	38	15.7	6.0
7/26/01	80			20.47	38	38	15.9	6.0
7/27/01	80	66	51.2	23.26	38	38	15.3	6.0
7/28/01				0.00	38	38	16.0	6.0
7/29/01				0.00	38	38	16.8	6.0
7/30/01	79	64	52.7	21.13	38.2	38.2	17.4	5.4
7/31/01	80	65	52.5	23.52	38	38	17.0	6.0
8/1/01	79	67	47.0	32.16	38	38	16.4	6.0
8/2/01	80	66	51.4	19.66	38	38	15.5	6.0
8/3/01	81	65	55.6	15.53	38	38	14.3	6.0
8/4/01				0.00	38	38	14.3	6.0
8/5/01				0.00	38	38	14.8	6.0
8/6/01	79	64	52.2	19.78	38	38	14.9	6.0
8/7/01	80	67	49.2	34.93	38	38.3	15.3	5.6
8/8/01	81	64	57.0	23.53	38.1	38.2	14.8	5.5
8/9/01	81			24.34	38.3	38.3	15.0	5.1

#### **Biosolids Processing Data July - August 2001**

	Digester Influent	Digester Effluent	AverageVolatile	Belt Press Discharge	Digester #1	Digester #2	Digest	er
	Volatile Suspended Solids	Volatile Suspended Solids	Suspended Solids Reduction		Temperature	Temperature	Detention Tir	
DATE	%	%	<del>*</del> %	Dry Tons	°C	°C	Measured	Required
8/10/01	79			22.66	38.5	38.5	14.5	4.5
8/11/01				0.00	38	38	14.6	6.0
8/12/01				0.00	38	38	14.8	6.0
8/13/01	81	63	58.9	21.11	38.06	38.16	15.7	5.7
8/14/01	81	64	57.9	21.47	38.56	38.56	15.9	4.3
8/15/01	81	66	55.1	22.20	38	38	16.1	6.0
8/16/01	80	64	56.3	9.00	38.25	38.25	18.1	5.3
8/17/01	80	64	56.7	20.66	38.3	38.3	16.0	5.1
8/18/01				0.00	38	38	14.9	6.0
8/19/01				0.00	38.5	38.5	15.0	4.5
8/20/01	80	64	54.8	21.26	38.43	38.3	15.7	4.9
8/21/01	78	65	48.3	25.17	38.5	38.5	15.9	4.5
8/22/01	80	62	59.9	33.91	38	38	15.8	6.0
8/23/01	81	66	53.0	21.99	38.5	38.5	17.0	4.5
8/24/01	80			10.21	38.5	38.5	17.9	4.5
8/25/01				0.00	38	38	18.3	6.0
8/26/01				0.00	38	38	15.3	6.0
8/27/01	80	63	58.0	24.99	38.5	38.5	15.1	4.5
8/28/01	81	64	58.4	24.91	38.5	38.5	14.3	4.5
8/29/01	80	65	52.9	17.22	38.3	38.3	14.5	5.1
8/30/01	80	65	54.3	21.28	38.5	38.5	15.4	4.5
8/31/01	80			9.95	38.5	38.5	15.6	4.5
Minimum	78.2	62.0	47.0	0	38	38	14.2	4.3
Maximum	81.4	67.0	59.9	34.93	38.56	38.56	18.3	6.0
Average	80.0	65.1	53.6	16.39	38.1	38.1	15.6	5.6
Total				1016.00				

# VECTOR ATTRACTION REDUCTION AND PATHOGEN REDUCTION 1. Facility Name Riverside Regional Water 2. Facility Owner's Name City of

Facility Name <u>Riverside Regional Water</u> Quality Control Plant	2. Facility Owner's Name City of
Address 5950 Acorn St	Riverside Address3900 Main Street
City Riverside	Address 3900 Main Street
State CA 7in 02504	City Riverside
State_ <u>CA</u>	State <u>CA</u> Zip <u>92522</u>
3. Monitoring Period:	Reporting Period:
From <u>09/01/01</u> To <u>10/31/01</u>	From <u>09/01/01</u> To <u>10/31/01</u>
4. NPDES Permit No: CA 0105350	Sludge Permit No: N/A
	14/11 14/11
5. Facility Latitude: 33° 57' 55" N	Facility Longitude: 117° 27' 28" W
Site Map Attached Yes	No
units or activities and describes operating proparameters such as treatment capacity, sludge percent solids. Also include a description of operating parameters.	uction procedures that identifies specific treatment rocedures. Include target values for all operating ge detention time, operating temperature, pH, and f standard procedures for regular evaluation of the  Schematic diagram or drawing attached.
VECTOR ATTRACTION REDUCTION	- OPTION 1 [40 CFR 503 33 (R)(1)]
	(Mass of volatile solids in the sewage sludge been
reduced by at least 38%) to demonstrate con-	onliance with the regulations
and a symmetric control of the contr	inplicance with the regulations.
a. Alternative 1 - Time and Temperature	
	wage sludge been reduced by at least 38%?
the second of the second	wage staage seem reduced by at least 5070:
	yes   no
Frequency volatile solids reduction is v	
requestey volatile solids reduction is v	ermed38 per _period
DATHOCENC DEDUCTION CLASSI	
	<b>B - ALTERNATIVE 2 [40 CFR 503.32 (B) (3)]</b>
8. Anaerobic Digestion	
	adge between 15 days at 35°C to 55°C and 60
days at 20°C?	
	yes no
	755 10
	✓
b. Provide the frequency of temperature mea	asurements (i.e. continuous, 1 per hour, etc.)
1/shift, 3 shi	fts/day
c. Provide the average detention time and diperiod <u>15.6</u> days at 38.3 °C.	gester operating temperature for the reporting

#### MONITORING PERIOD

September 1, 2001 through October 31, 2001

Parameter	Table 3 Pollutant Concentrations	Maximum Pollutant Concentration MG/KG	Frequency of Analysis	Sample Type, Grab or Composite	Analytical Method
Arsenic	41	7.73	2	Composite	6010B ICP
Cadmium	39	ND	2	Composite	6010B ICP
Chromium	1200	56.7	2	Composite	6010B ICP
Copper	1500	847	2	Composite	6010B ICP
Lead	300	61.5	2	Composite	6010B ICP
Mercury	17	0.61	2	Composite	245.5
Molybdenum	<b></b>	13.8	2	Composite	6010B ICP
Nickel	420	51.2	2	Composite	6010B ICP
Selenium	36	7.87	2	Composite	6010B ICP
Zinc	2800	1014	2	Composite	6010B ICP

#### Certification

I certify under penalty of law that this document and all attachments were prepared under my supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information submitted, it is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information.

John A. Claus, Operations Manager	(909) 351-6187
Name and Title (Type or print)	Area Code and Phone
ACQ.	11/29/01
Signature	Date Signed

Table 3 concentration limits are referenced to demonstrate that the sludge is of exceptional quality in regards to metals.



#### ASSOCIATED LABORATORIES

806 North Batavia • Orange, California 92868 • 714/771-6900

FAX 714/538-1209

**CLIENT** 

City of Riverside Diana Whitney 5950 Acorn St. Riverside, Ca. 92504

LAB NO.

LR79256

**REPORTED** 

10/12/01

SAMPLE

Solid

**RECEIVED** 

09/05/01

**IDENTIFICATION** 

Dry Sludge

Date Collected 09/04/01 @ None Given

**BASED ON SAMPLE** 

As Submitted

Garantin .	Date/	<b>EPA</b>	Method Detection	n	
Constituent	<u>Analyst</u>	<u>Method</u>	<u>Limit</u>	Resul	ts
Arsenic	09/12 KN	6010B	0.50	7.26	mg/kg
Cadmium	09/12 KN	6010B	0.30	ND	mg/kg
Chromium	09/12 KN	6010B	0.50	55.3	mg/kg
Copper	09/12 KN	6010B	0.50	777	mg/kg
Lead	09/12 NK	6010B	0.25	61.5	mg/kg
Mercury	09/06 <b>MJ</b>	245.5	0.12	0.61	mq/kq
Molybdenum	09/12 KN	6010B	0.65	ND	mg/kg
Nickel	09/12 KN	6010B	0.60	51.2	mq/kq
Phosphorus	09/12 KN	6010B	10.0	40,500	mg/kg
Potassium	09/12 KN	6010B	50.0	2,430	mg/kg
Selenium	09/12 NK	6010B	0.20	7.87	mg/kg
Zinc	09/12 KN	6010B	0.30	933	mg/kg
Nitrate	09/09 CM	300.0	5.0	27	mg/kg
Ammonia	09/18 MB	350.2	5.0	3,200	mg/kg
Total Kjeldahl Nitrogen	09/10 BS	351.3	5.0	45,800	mg/kg
Percent Moisture	09/06 LN			9.28	J . J
рН	09/06 LN	150.1	N/A	6.62	

Samples expressed on a "Dry Weight Basis"

ABSOCIATED LABORATORIES,

Robert A. Webber Vice President

RAW/gk

TESTING & CONSULTING

Chemical •

Microbiological •

Environmental •

The reports of the Associated Laboratories are confidential property of our clients and may not be reporduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

Order #: 298192 Matrix: SOLID Client: City of Riverside (WW)

Client Sample ID: Dry Sludge

Date Sampled: 10/09/2001

Time Sampled: Sampled By:

Analyte		Result	DF	DLR	Units	Date/A	nalys
50.1 - TY							
<u>рН</u>	<u> </u>	6.57	1		NA	10/15/01	LN
5.5 Mercury in Solids by Manual Cold Vapor							
Mercury	L	0.55	1	0.12	mg/Kg	10/11/01	MJ
0.0 Nitrate as NO3 by Ion Chromatography							
Nitrate (as NO3)		44.1	11	5.0	mg/Kg	10/16/01	CM
0.1 Ammonia, Automated Phenate							
Ammonia -N		5028	1	1.0	mg/Kg	10/22/01	MB
Total Kjeldahl  OB ICP Metals - Solid/Liquid		41,400	1	5.0	mg/Kg	11/06/01	NK
10B ICP Metals - Solid/Liquid		7.73		0.50	· · · · · · · · · · · · · · · · · · ·	10/15/01	KN
Arsenic Cadmium		7.73 NDI	10	5.0	mg/Kg mg/Kg	10/15/01	KN
Chromium		56.7	10	10.0	mg/Kg	10/15/01	KN
Copper		847	10	10.0	mg/Kg	10/15/01	KN
Lead		61.1	1	0.50	mg/Kg	10/15/01	KN
Molybdenum		13.8	10	10.0	mg/Kg	10/15/01	KN
Nickel		26.2	10	15.0	mg/Kg	10/15/01	KN
Phosphorus	İ	43,483	10	100.0	mg/Kg	10/15/01	KN
Potassium		2750	10	1500.0	mg/Kg	10/15/01	KN
Selenium	l	7.73	1	0.50	mg/Kg	10/15/01	KN
Zinc		1014	10	50.0	mg/Kg	10/15/01	KN
isture, Oven Method							
Moisture		10.70	1		%	10/15/01	LN

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Facto



#### Monthly Sludge Disposal Report

<u>September</u>	2001
Month	Year

During this month, 0.0 tons of Biosolids were removed by our subcontractor, Synagro West, Inc., located at P.O. Box 7027, Corona, CA, 92878-7027. They are currently performing land application of the biosolids. During this month, 495.22 tons of Biosolids were removed by our subcontractor, One Stop Landscape Supply, located at 13024 San Timoteo Canyon Road, Redlands, CA 92373. They are currently performing composting with the biosolids.

Laboratory analysis data is attached certifying the Biosolids generated at this plant to be a clean Class B sludge.

Digester data is attached certifying the Biosolids have met the time and temperature requirements for Class B Pathogen Reduction through Anaerobic Digestion as well as the Vector Attraction requirement of more than 38% volatile solids reduction.

"I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)1 have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

Signature

Date

10/30/01

#### Monthly Sludge Disposal Report

<u>October</u>	_2001_
Month	Year

During this month, <u>0.0</u> tons of Biosolids were removed by our subcontractor, Synagro West, Inc., located at P.O. Box 7027, Corona, CA, 92878-7027. They are currently performing land application of the biosolids. During this month, <u>563.20</u> tons of Biosolids were removed by our subcontractor, One Stop Landscape Supply, located at 13024 San Timoteo Canyon Road, Redlands, CA 92373. They are currently performing composting with the biosolids.

Laboratory analysis data is attached certifying the Biosolids generated at this plant to be a clean Class B sludge.

Digester data is attached certifying the Biosolids have met the time and temperature requirements for Class B Pathogen Reduction through Anaerobic Digestion as well as the Vector Attraction requirement of more than 38% volatile solids reduction.

"I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)1 have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

Signature

Date

11/29/01

#### **Biosolids Processing Data September - October 2001**

	Digester Influent	Digester Effluent	AverageVolatile	Belt Press Discharge	Digester #1	Digester #2	Digesto	er
	Volatile Suspended Solids	Volatile Suspended Solids	Suspended Solids Reduction		Temperature	Temperature	Detention Tin	ne (days)
DATE	%	%	%	Dry Tons	°C	°C	Measured	Required
9/1/01				0.00	38.5	38.5	15.4	4.5
9/2/01				10.34	38.5	38.25	15.0	4.9
9/3/01	81	65	56.9	23.69	38	38.16	15.6	5.8
9/4/01	80	64	54.5	24.06	38.5	38.5	15.0	4.5
9/5/01	81	64	58.3	33.35	38	38.3	14.7	5.6
9/6/01	82	67	54.4	17.33	38.5	38.5	15.2	4.5
9/7/01	81	64	58.1	17.17	38	38	15.2	6.0
9/8/01				0.00	38	38	15.3	6.0
9/9/01				0.00	38	38	15.3	6.0
9/10/01				22.82	38.5	38.5	14.9	4.5
9/11/01	80	65	53.6	19.91	38	38.5	14.3	5.3
9/12/01	79	65	52.0	32.86	38	38.16	15.1	5.8
9/13/01	82	63	61.6	23.63	38	38	15.3	6.0
9/14/01	81			10.30	38	38	15.1	6.0
9/15/01				0.00	38	38	15.0	6.0
9/16/01				0.00	38	38.16	14.6	5.8
9/17/01	82	65	58.4	26.23	38.3	38.4	14.9	5.0
9/18/01	83	65	61.0	23.42	38.5	38.5	14.9	4.5
9/19/01	82	66	56.9	30.07	38.3	38.3	15.8	5.1
9/20/01	82	65	59.0	19.51	38.5	38.5	14.8	4.5
9/21/01	82	65	59.5	20.55	38.5	38.5	14.6	4.5
9/22/01				0.00	38	38	14.3	6.0
9/23/01				0.00	38.3	38.5	14.3	4.8
9/24/01	80	64	55.1	20.25	38.5	38.5	14.5	4.5
9/25/01	81	65	56.8	24.45	38.5	38.5	14.5	4.5
9/26/01	81	64	59.1	34.07	38.2	38	14.7	5.7
9/27/01	81	65	57.2	22.15	38	38.5	14.9	5.3
9/28/01	80			11.01	38	38.5	14.9	5.3
9/29/01				10.80	38.5	38	15.2	5.3
9/30/01				0.00	38.16	38.16	15.5	5.5
10/1/01	81	64	57.4	21.34	38.5	38.5	15.5	4.5
10/2/01	81	66	54.0	24.65	38.5	38.5	15.4	4.5
10/3/01	81	66	54.4	33.67	38.5	38.5	15.5	4.5
10/4/01	80			19.98	38.5	38.5	15.5	4.5
10/5/01	82	65	58.3	19.27	38.5	38.5	16.4	4.5
10/6/01				3.49	38	38	17.1	6.0
10/7/01				0.00	38	38	17.4	6.0
10/8/01	81	65	57.5	17.88	38.56	38.56	16.2	4.3
10/9/01	81	65	57.1	19.87	38.3	38.16	16.0	5.3
10/10/01	81	66	55.2	32.17	38.16	38.3	15.9	5.3
10/11/01	83			10.75	38.5	38.5	15.6	4.5

#### **Biosolids Processing Data September - October 2001**

	Digester Influent	Digester Effluent	AverageVolatile	Belt Press Discharge	Digester #1	Digester #2	Digeste	er
	Volatile Suspended Solids	Volatile Suspended Solids	Suspended Solids Reduction		Temperature	Temperature	Detention Tin	
DATE	%	%	%	Dry Tons	°C	°C	Measured	Required
10/12/01	80	63	58.0	22.94	38	38.5	15.2	5.3
10/13/01				0.00	38	38	15.2	6.0
10/14/01				0.00	38	38	14.9	6.0
10/15/01	81	64	56.9	21.32	38.16	38.5	15.5	5.0
10/16/01	81	65	56.4	24.34	38	38.5	14.9	5.3
10/17/01	82	66	56.7	27.44	38	38.16	14.5	5.8
10/18/01	79	64	52.0	22.99	38	38.5	16.4	5.3
10/19/01	81	66	53.5	6.98	38.5	38.5	18.2	4.5
10/20/01				0.00	38.5	38.5	18.9	4.5
10/21/01				10.96	38	38.5	17.5	5.3
10/22/01	79	63	55.1	23.53	38.5	38.1	16.9	5.1
10/23/01	80	64	55.8	23.65	38	38	17.2	6.0
10/24/01	81	67	51.1	28.93	38	38.6	17.9	5.1
10/25/01	81	67	50.9	12.06	38.3	38.3	17.9	5.1
10/26/01	80	66	51.6	20.61	38.5	38.5	17.1	4.5
10/27/01				4.28	38.5	38.5	16.0	4.5
10/28/01				0.00	38	38	15.2	6.0
10/29/01	80	65	53.2	22.76	38	38.5	15.1	5.3
10/30/01	81	68	50.7	22.85	38.5	38.5	14.8	4.5
10/31/01	81	65	57.0	30.86	38	38.16	14.7	5.8
Minimum	78.7	63.0	50.7	0	38	38	14.3	4.3
Maximum	82.7	68.0	61.6	34.07	38.56	38.6	18.9	6.0
Average	80.9	65.0	55.9	16.52	38.2	38.3	15.6	5.2
Total				1007.53				

### VECTOR ATTRACTION REDUCTION AND PATHOGEN REDUCTION

1.	Facility Name Riverside Regional Water	· · · · · · · · · · · · · · · · · · ·	
	Quality Control Plant		side
	Address 5950 Acorn St.	Address 3900 Main Street	
	City Riverside		
	StateCA Zip92504	State <u>CA</u> Zip	92522
	Monitoring Period: From 11/01/01 To 12/31/01		
4.	NPDES Permit No: CA 0105350	Sludge Permit No: N/A	
5.	Facility Latitude: 33° 57' 55" N	Facility Longitude: 117° 27' 28	" W
	Site Map Attached Yes	No	
6.	Attach a description of vector attraction redunits or activities and describes operating preparameters such as treatment capacity, sludge percent solids. Also include a description of operating parameters.	ocedures. Include target values for a ge detention time, operating temperar f standard procedures for regular eva	all operating ture, pH, and aluation of the
	VECTOR ATTRACTION REDUCTION	- OPTION 1 [40 CFR 503.33 (I	B)(1)]
7.	The City of Riverside utilizes Alternative 1 reduced by at least 38%) to demonstrate con a. Alternative 1 - Time and Temperature Has the mass of volatile solids in the se	npliance with the regulations.	
			yes no
			✓
	Frequency volatile solids reduction is v	erified 39 per period.	
I	PATHOGENS REDUCTION CLASS I	B - ALTERNATIVE 2 [40 CFR 50	)3.32 (B) (3)]
8.	Anaerobic Digestion		
•	a. Was the residence time for the sewage shat 20°C?	udge between 15 days at 35°C to 55°	°C and 60 days
			yes no
			1
	b. Provide the frequency of temperature me 1/shift, 3 sh		our, etc.)
	c. Provide the average detention time and d	igester operating temperature for the	renorting

#### MONITORING PERIOD

November 1, 2001 through December 31, 2001

Parameter	Table 3 Pollutant Concentrations	Maximum Pollutant Concentration MG/KG	Frequency of Analysis	Sample Type, Grab or Composite	Analytical Method
Arsenic	41	7.64	2	Composite	6010B ICP
Cadmium	39	2.37	2	Composite	6010B ICP
Chromium	1200	50.8	2	Composite	6010B ICP
Copper	1500	879	2	Composite	6010B ICP
Lead	300	59.7	2	Composite	6010B ICP
Mercury	17	0.68	2	Composite	245.5
Molybdenum		17.5	2	Composite	6010B ICP
Nickel	420	22.2	2	Composite	6010B ICP
Selenium	36	11.4	2	Composite	6010B ICP
Zinc	2800	1025	2	Composite	6010B ICP

#### Certification

I certify under penalty of law that this document and all attachments were prepared under my supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information submitted, it is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information.

John A. Claus, Operations Manager

Name and Title (Type or print)

Area Code and Phone

Various

Signature

Date Signed

Table 3-concentration limits are referenced to demonstrate that the sludge is of exceptional quality in regards to metals.

Order #: 305326
Matrix: SOLID

305326 Cl

Client: City of Riverside (WW)

Client Sample ID: Dry Sludge

Date Sampled: 11/05/2001

`Time Sampled: Sampled By:

Analyte	Result	DF	DLR	Units	Date/Ana	aly
wII						
<u>рН</u> рН	6.30	1		NA	11/13/01	LN
Mercury in Solids by Manual Cold Vapor						
Mercury	0.68	1	0.12	mg/Kg	11/08/01	MJ
Nitrate as NO3 by Ion Chromatography						
Nitrate (as NO3)	250	1	5.0	mg/Kg	12/01/01	CN
Ammonia, Automated Phenate Ammonia -N	J 8300J	1	1.0	mg/Kg	11/20/01	Nŀ
Total Kjeldahl Nitrogen (TKN)					The second secon	
Total Kjeldahl Nitrogen (TKN)	47,100	1	5.0	mg/Kg		NF
Total Organic Nitrogen (as N)	38,800	1	5.0	mg/Kg	11/19/01	NF
BICP Metals - Solid/Liquid						
Arsenic	7.64	1	0.50	mg/Kg	11/19/01	KN
Cadmium	ND	1	0.50	mg/Kg	11/19/01	KN
Chromium	50.8	1	1.00	mg/Kg	11/19/01	KN
Copper	847	1	1.00	mg/Kg	11/19/01	KN
Lead	58.6	1	0.50	mg/Kg	11/19/01	KN
Molybdenum	[ 16.1]	1	1.00	mg/Kg	11/19/01	KN
Nickel	21.7	1	1.50	mg/Kg	11/19/01	KN
Phosphorus	39,400	1	10.0	mg/Kg	11/19/01	KN
Potassium	2830	1	150.0	mg/Kg	11/19/01	KN
Selenium	8.45	1	0.50	mg/Kg	11/19/01	KN
Zinc	1025	1	5.00	mg/Kg	11/19/01	KN
wre, Oven Method  Moisture	11.35	1		%	11/13/01	LN

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Facto



Order #: 312085
Matrix: SOLID

Client: City of Riverside (WW) Client Sample ID: Dry Sludge 12/04

Date Sampled: 12/04/2001

Moisture

Time Sampled: Sampled By:

Analyte	<del></del>	Result	DF	DLR	Units	Date/Ar	nalys
.1 pH							
рН		6.45	1		NA	12/19/01	DN
.5 Mercury in Solids by Manual Cold Vapor							
Mercury		0.62	1	0.12	mg/Kg	12/14/01	MJ
.0 Nitrate as NO3 by Ion Chromatography							
Nitrate (as NO3)		ND	1	5.0	mg/Kg	12/15/01	CM
1 Ammonia, Automated Phenate				• •	ma/Va	12/26/01	NH
Ammonia -N		4340	1	5.0	mg/Kg	12/12/01	NH
2 Total Kjeldahl, Semi-Automated  Total Kjeldahl	.				mg/Kg		NH
Ammonia -N  2 Total Kjeldahl, Semi-Automated		45,400		5.0	mg/Kg	12/12/01	
Ammonia -N  2 Total Kjeldahl, Semi-Automated  Total Kjeldahl  DB ICP Metals - Solid/Liquid			1		mg/Kg		KN
Ammonia -N  2 Total Kjeldahl, Semi-Automated  Total Kjeldahl  DB ICP Metals - Solid/Liquid  Arsenic		45,400	1	0.50	mg/Kg	12/12/01	KN KN
Ammonia -N  2 Total Kjeldahl, Semi-Automated  Total Kjeldahl  DB ICP Metals - Solid/Liquid  Arsenic  Cadmium		7.22 2.37	1	5.0 0.50 0.50	mg/Kg mg/Kg mg/Kg	12/12/01 12/14/01 12/14/01	KN KN
Ammonia -N  2 Total Kjeldahl, Semi-Automated  Total Kjeldahl  DB ICP Metals - Solid/Liquid  Arsenic  Cadmium  Chromium		7.22 2.37 50.3	1 1 1 1	0.50 0.50 1.00	mg/Kg mg/Kg mg/Kg mg/Kg	12/12/01 12/14/01 12/14/01 12/14/01	KN KN KN
Ammonia -N  2 Total Kjeldahl, Semi-Automated  Total Kjeldahl  DB ICP Metals - Solid/Liquid  Arsenic  Cadmium  Chromium  Copper		7.22 2.37 50.3 879	1 1 1 1	0.50 0.50 1.00	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	12/12/01 12/14/01 12/14/01 12/14/01 12/14/01	KN KN KN
Ammonia -N  2 Total Kjeldahl, Semi-Automated  Total Kjeldahl  DB ICP Metals - Solid/Liquid  Arsenic  Cadmium  Chromium  Copper  Lead		7.22 2.37 50.3 879 59.7	1 1 1 1 1	0.50 0.50 1.00 1.00 0.50	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	12/12/01 12/14/01 12/14/01 12/14/01 12/14/01	KN KN KN KN
Ammonia -N  2 Total Kjeldahl, Semi-Automated  Total Kjeldahl  DB ICP Metals - Solid/Liquid  Arsenic  Cadmium  Chromium  Copper  Lead  Molybdenum		7.22 2.37 50.3 879 59.7 17.5	1 1 1 1 1	5.0 0.50 0.50 1.00 1.00 0.50 1.00	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	12/12/01 12/14/01 12/14/01 12/14/01 12/14/01 12/14/01	KN KN KN KN
Ammonia -N  2 Total Kjeldahl, Semi-Automated  Total Kjeldahl  DB ICP Metals - Solid/Liquid  Arsenic  Cadmium  Chromium  Copper  Lead  Molybdenum  Nickel		7.22 2.37 50.3 879 59.7 17.5 22.2	1 1 1 1 1	5.0 0.50 0.50 1.00 1.00 0.50 1.00 1.50	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	12/12/01 12/14/01 12/14/01 12/14/01 12/14/01 12/14/01 12/14/01	KN KN KN KN KN
Ammonia -N  2 Total Kjeldahl, Semi-Automated  Total Kjeldahl  DB ICP Metals - Solid/Liquid  Arsenic  Cadmium  Chromium  Copper  Lead  Molybdenum  Nickel  Phosphorus		7.22 2.37 50.3 879 59.7 17.5 22.2 29,800	1 1 1 1 1 1	5.0 0.50 0.50 1.00 0.50 1.00 1.50 10.0	mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg	12/12/01 12/14/01 12/14/01 12/14/01 12/14/01 12/14/01 12/14/01 12/14/01	KN KN KN KN KN

DLR = Detection limit for reporting purposes, ND = Not Detected below indicated detection limit, DF = Dilution Facto



NH

12/13/01

## ASSOCIATED LABORATORIES Analytical Results Report

37

1

**%** 

#### Monthly Sludge Disposal Report

November	2001
Month	Year

During this month, 2,298.45 tons of Biosolids were removed by our subcontractor, Synagro West, Inc., located at P.O. Box 7027, Corona, CA, 92878-7027. They are currently performing land application of the biosolids. During this month, 0.0 tons of Biosolids were removed by our subcontractor, One Stop Landscape Supply, located at 13024 San Timoteo Canyon Road, Redlands, CA 92373. They are currently performing composting with the biosolids.

Laboratory analysis data is attached certifying the Biosolids generated at this plant to be a clean Class B sludge.

Digester data is attached certifying the Biosolids have met the time and temperature requirements for Class B Pathogen Reduction through Anaerobic Digestion as well as the Vector Attraction requirement of more than 38% volatile solids reduction.

"I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)1 have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

Signature

Date

12/27/01

#### Monthly Sludge Disposal Report

December	2001
Month	Year

During this month, 0.0 tons of Biosolids were removed by our subcontractor, Synagro West, Inc., located at P.O. Box 7027, Corona, CA, 92878-7027. They are currently performing land application of the biosolids. During this month, 0.0 tons of Biosolids were removed by our subcontractor, One Stop Landscape Supply, located at 13024 San Timoteo Canyon Road, Redlands, CA 92373. They are currently performing composting with the biosolids.

Laboratory analysis data is attached certifying the Biosolids generated at this plant to be a clean Class B sludge.

Digester data is attached certifying the Biosolids have met the time and temperature requirements for Class B Pathogen Reduction through Anaerobic Digestion as well as the Vector Attraction requirement of more than 38% volatile solids reduction.

"I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)1 have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

Signature

Date

01/29/02

#### **Biosolids Processing Data November - December 2001**

	Digester Influent	Digester Effluent	AverageVolatile	Belt Press Discharge	Digester #1	Digester #2 Temperature	Digester Detention Time (days)	
	Volatile Suspended Solids	Volatile Suspended Solids	Suspended Solids Reduction		Temperature			
DATE	%	%	%	Dry Tons	°C	°C	Measured	Required
11/1/01	81	65	55.2	22.03	38.5	38.5	14.7	4.5
11/2/01	80	65	53.0	21.00	38.5	38.5	14.1	4.5
11/3/01				0.00	38.5	38.5	14.2	4.5
11/4/01				0.00	38.16	38.16	14.4	5.5
11/5/01	80	64	56.6	22.42	38.5	38.5	14.6	4.5
11/6/01	81	65	55.4	23.73	38.16	38.3	14.3	5.3
11/7/01	80	66	52.3	22.22	38.3	38.5	14.6	4.8
11/8/01	80			12.33	38.5	38.5	14.8	4.5
11/9/01	78	67	44.3	23.58	38.5	38.5	14.3	4.5
11/10/01				10.71	38.5	38.5	14.1	4.5
11/11/01				30.30	38	38.76	14.3	4.9
11/12/01	79	66	48.2	18.60	38	38.5	14.4	5.3
11/13/01	80	64	54.9	22.11	38	38.5	14.1	5.3
11/14/01	79	65	51.3	26.22	38.5	38.6	13.8	4.4
11/15/01	80	56	68.8	20.64	38.5	38.5	14.4	4.5
11/16/01	82	66	56.1	20.26	38.1	38.5	14.4	5.1
11/17/01				8.66	38	38	14.8	6.0
11/18/01				0.00	38.5	38.5	15.5	4.5
11/19/01	80	63	58.4	23.58	38.16	38.16	16.2	5.5
11/20/01	80	64	54.3	23.54	38	38	14.5	6.0
11/21/01	81	62	61.0	36.25	38.3	38.3	14.9	5.1
11/22/01	81			0.00	38	38	15.8	6.0
11/23/01	82	64	60.7	22.29	38.5	38.5	14.8	4.5
11/24/01				0.00	38.5	38.5	15.1	4.5
11/25/01				0.00	38.3	38.3	14.9	5.1
11/26/01	80	63	56.5	25.61	38.16	38.3	14.8	5.3
11/27/01	81			21.72	38.5	38.5	14.5	4.5
11/28/01	80	65	53.6	34.04	38.3	38.3	14.4	5.1
11/29/01	81	66	54.4	13.99	38.5	38.5	14.8	4.5
11/30/01	81	64	58.4	20.09	38.3	38.3	14.8	5.1
12/1/01				11.43	38	38.5	15.3	5.3
12/2/01				10.64	38	38.25	14.4	5.6
12/3/01	83	67	58.9	23.90	38	37.6	14.9	6.6
12/4/01	81	66	54.8	22.69	38.5	38.5	15.1	4.5
12/5/01	81	66	53.2	28.07	38.16	38.3	15.8	5.3
12/6/01	83	65	60.8	24.58	38	38.5	16.4	5.3
12/7/01	81	65	57.2	21.47	38.5	38.5	16.4	4.5
12/8/01				0.00	38	38	16.0	6.0
12/9/01				0.00	38	38.16	15.9	5.8
12/10/01	82	67	55.8	21.41	38	38.5	15.3	5.3

## **Biosolids Processing Data November - December 2001**

	Digester Influent	Digester Effluent	AverageVolatile	Belt Press Discharge	Digester #1	Digester #2	Digester	
	Volatile Suspended Solids	Volatile Suspended Solids	Suspended Solids Reduction		Temperature	Temperature	Detention Time (days)	
DATE	%	%	%	Dry Tons	°C	°C	Measured	Required
12/11/01	81	53	74.3	25.84	38.5	38.5	15.1	4.5
12/12/01	83	65	61.4	25.75	38	38	15.6	6.0
12/13/01	83	66	59.0	10.23	38.5	38	15.3	5.3
12/14/01	83	66	59.0	24.41	38.5	38.5	15.4	4.5
12/15/01				0.00	38	38	15.5	6.0
12/16/01				0.00	38.16	38.3	15.2	5.3
12/17/01	80	66	52.3	22.84	38.5	38.5	15.0	4.5
12/18/01	82	67	55.7	25.38	38	38.1	15.5	5.9
12/19/01	82	67	55.6	36.72	38.3	38.3	15.8	5.1
12/20/01	82	67	56.1	24.04	38.5	38.5	16.0	4.5
12/21/01	82	66	56.3	23.95	38.5	38.5	16.5	4.5
12/22/01				12.31	38.5	38.5	17.4	4.5
12/23/01				3.89	38	38	17.2	6.0
12/24/01	81			14.10	38.16	38.3	17.0	5.3
12/25/01	80	66	50.7	0.00	38.16	38.16	16.4	5.5
12/26/01	82	67	54.4	22.70	38.16	38.16	17.4	5.5
12/27/01	81	66	54.0	19.53	38.5	38.5	16.9	4.5
12/28/01	82	66	56.4	22.04	38.5	38.5	16.4	4.5
12/29/01				12.90	38.5	38.5	16.9	4.5
12/30/01				32.75	38.3	38.5	16.4	4.8
12/31/01	81	64	58.6	13.06	38.25	38.25	16.1	5.3
Minimum	78.5	53.0	44.3	0	38	37.6	13.8	4.4
Maximum	83.2	67.0	74.3	36.72	38.5	38.76	17.4	6.6
Average	81.0	64.8	56.4	17.42	38.3	38.4	15.3	5.1
Total				1062.55				